March 1975 Number 367-Part I

Solar-Geophysical Data prompt reports

Data for February 1975–January 1975

Explanation of Data Reports Issued as Number 366 (Supplement) February 1975

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Solar - Geophysical Data

NO. 367 ' MARCH 1975

Part I (Prompt Reports)

DATA FOR
FEBRUARY 1975
JANUARY 1975

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80302.

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To standardize referencing these reports in the open literature, the following format is recommended:

Solar-Geophysical Data, 366 Part I (or Part II), pages, February 1975, U.S. Department of Commerce, (Boulder, Colorado, U.S.A. 80302)

SOLAR - GEOPHYSICAL DATA

No. 367

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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SGD 367 Part I (Prompt)

FEBRUARY 1975 DATA

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ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

FEBRUARY 1975

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS).

Boulder 23/1400Z Magstorm begins 23/0910Z weak Magstorm in progress 23/1400Z.

SUMMARY OF THE GEOALERT WWA MESSAGES

Message serial number	Date of issue	Date of observation	Wolf number	10cm solar flux	A index	Active Regions: Location Lat-Long	No. of Flares: Total	M	X	Outstanding events	Forecasts: Date	Location Lat-Long	Desc*	Alert Situations
032	01	31	00	72	17	-	-	-	-		01	SPOTNIL	-	SOLQUIET MAGALERT MINOR 01/04
033	02	01	00	73	20	-	-	-	-		02	SPOTNIL	-	SOLQUIET MAGALERT MINOR 02/04
034	03	02	33	75	19	S13E57 S10E68	0 0	0 0	0 0		03	S13E57 S10E68	Q Q	SOLQUIET MAGALERT MINOR 03/04
035	04	03	53	77	11	S13E43 S11E56 S10E49	0 0 1	0 0 0	0 0 0		04	S13E43 S11E56 S10E49	Q Q Q	SOLQUIET MAGNIL
036	05	04	25	78	07	S12E26 S11E32	0 0	0 0	0 0		05	S12E26 S11E32	Q Q	SOLQUIET MAGQUIET
037	06	05	35	79	15	N03E50 N12E40 S12E10	8 0 0	0 0 0	0 0 0		06	N03E50 N12E40 S12E10	E Q O	SOLALERT 06/10 MAGQUIET
038	07	06	42	83	08	N04E40 S10E00 S12W08	4 0 0	0 0 0	0 0 0		07	N04E40 S10E00 S12W08	E O O	SOLALERT 07/10 MAGQUIET
039	08	07	27	82	09	S13W14 S11W09 N04E20	1 0 1	0 0 0	0 0 0		08	S13W14 S11W09 N04E20	Q Q Q	SOLNIL MAGALERT RECURRENCE 09/15
040	09	08	17	81	08	N04E06	0	0	0		09	N04E06	Q	SOLQUIET MAGALERT MINOR RECURRENCE 09/15
041	10	09	19	79	06	N03W05	0	0	0		10	N04W05	Q	SOLQUIET MAGALERT MINOR RECURRENCE 09/15
042	11	10	38	79	21	N03W20	0	0	0	MINOR MAGNETIC DISTURBANCE STARTED ABOUT 11/0000Z	11	N03W20	Q	SOLQUIET MAGALERT MINOR 11/15
043	12	11	19	77	19	N03W34	1	0	0		12	N03W34	Q	SOLQUIET MAGALERT MINOR 12/15
044	13	12	11	77	28	N03W49	0	0	0		13	N03W49	Q	SOLQUIET MAGALERT MINOR 13/15
045	14	13	11	76	18	N03W64	1	0	0		14	N03W64	Q	SOLQUIET MAGALERT MINOR 14/15
046	15	14	11	74	22	N03W77	0	0	0		15	N03W77	Q	SOLQUIET MAGALERT MINOR 15
047	16	15	00	72	16	-	0	0	0		16	SPOTNIL		SOLQUIET MAGALERT MINOR 16
048	17	16	00	73	19	-	0	0	0		17	SPOTNIL		SOLQUIET MAGALERT MINOR 17
049	18	17	00	71	14	-	0	0	0		18	SPOTNIL		SOLQUIET MAGNIL
050	19	18	00	70	12	-	0	0	0		19	SPOTNIL		SOLQUIET MAGQUIET
051	20	19	00	70	12	-	0	0	0		20	SPOTNIL		SOLQUIET MAGQUIET
052	21	20	11	71	06	N09E04	0	0	0		21	N09E04	Q	SOLQUIET MAGQUIET
053	22	21	11	70	06	N09W20	0	0	0		22	N09W20	Q	SOLQUIET MAGQUIET
054	23	22	13	70	05	N01W07	0	0	0		23	N01W07	Q	SOLOUIET MAGQUIET
055	24	23	17	70	27	S09W08	0	0	0	MINOR MAGSTORM BEGAN 23/0910Z	24	S09W08	Q	SOLOUIET MAGALERT MINOR 24
056	25	24	42	70	12	S08W03 N04W27	0 0	0 0	0 0		25	S08W03 N04W27	Q Q	SOLQUIET MAGNIL
057	26	25	14	71	16	S08W18	0	0	0		26	S08W18	Q	SOLQUIET MAGOUIET
058	27	26	00	70	10	-	0	0	0		27	SPOTNIL		SOLQUIET MAGALERT 27/03
059	28	27	00	71	04	-	0	0	0		28	SPOTNIL		SOLQUIET MAGALERT 28/03
060	01	28	00	70	10	-	0	0	0		01	SPOTNIL		SOLQUIET MAGALERT 01/03 STRATWARM ALERT / SATURDAY / STRATWARM EXISTS SIGNIFICANT INTENSIFICATION NOTED IN MID STRATOSPHERE WARM AIR SYSTEM OVER NORTHEASTERN SIBERIA.

* Q=Quiet E=Eruptive A=Active P=Proton C=Caution D=Doubtful O.G.=Other Groups

RELATIVE SUNSPOT NUMBERS

ZURICH, R_Z

	1974 FINAL												1975 PROVISIONAL	
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
1	12	13	24	22	47	33	79	37	8	61	18	0	30	0
2	15	10	14	20	70	41	87	23	8	53	27	0	30	22
3	13	7	0	19	85	52	90	12	16	46	39	9	28	24
4	12	7	10	22	98	57	93	17	37	60	45	16	19	27
5	8	0	14	21	100	62	95	18	40	85	36	17	18	20
6	0	0	19	23	102	72	93	26	44	83	25	8	23	26
7	4	7	20	28	98	55	78	32	38	84	22	7	32	34
8	24	15	14	38	96	59	59	34	32	92	14	0	29	29
9	29	21	20	56	88	64	40	43	63	107	7	0	37	22
10	43	22	30	66	69	59	26	48	74	114	24	9	31	18
11	48	20	37	71	62	48	22	54	80	110	27	21	30	13
12	54	22	38	74	49	38	22	67	80	92	24	31	31	18
13	45	48	38	77	38	44	28	69	74	76	16	34	32	9
14	70	26	39	83	32	41	38	66	67	63	8	33	11	8
15	73	45	34	87	23	32	49	59	64	48	16	35	20	8
16	64	48	23	77	16	25	54	57	68	41	20	40	17	8
17	63	49	20	67	8	25	52	52	71	28	20	36	16	0
18	55	47	28	55	0	27	53	44	66	16	18	34	20	0
19	53	43	21	45	0	28	47	43	51	9	34	43	20	0
20	48	39	15	42	0	20	50	32	31	11	40	40	18	7
21	33	35	16	35	0	16	55	28	13	12	40	40	16	8
22	36	36	28	25	7	11	58	34	0	9	44	37	16	0
23	28	31	25	17	9	11	60	34	7	7	44	28	15	0
24	14	29	21	18	7	15	57	28	11	7	37	26	7	12
25	0	17	16	19	0	15	59	25	11	8	29	9	7	9
26	8	19	10	20	20	8	60	8	13	16	25	8	7	0
27	0	37	9	28	18	8	54	8	19	30	23	8	0	0
28	8	33	17	15	28	18	51	8	23	27	13	20	7	0
29	0		19	22	18	30	42	14	38	22	7	16	7	
30	0		24	16	7	47	41	8	58	22	7	19	7	
31	0		26		30		36	15		16		13	0	
MEAN	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	18.7	11.6

1974 yearly mean = 34.5

DAILY SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

	1974										1975	
DAY	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
1	76.4	72.1	98.5	97.9	105.4*	85.1	77.8	93.1	90.2	79.7	78.1	78.8
2	76.5	71.3	113.1*	100.1	112.7*	85.2	79.4	94.6	92.0	78.7	75.8	72.3
3	77.1	71.6	115.5	98.9	118.5*	83.0	79.2	93.4	96.2	76.7	77.1	74.3
4	79.8	73.3	118.0	96.2	127.8*	85.8	81.0	100.5	99.5	74.7	74.4	75.4
5	78.6	76.3	119.7	96.5	125.6*	86.5	81.5	113.3*	97.6*	73.2	73.7	76.5
6	77.5	80.3	123.0	95.0*	121.5	88.0	82.2	115.0	92.3	71.9	73.8	81.1
7	76.8	80.2	119.3	92.8	110.9*	85.8	85.4	114.5*	85.6	71.1	75.7	79.4
8	77.0	81.1	115.8	95.0*	104.7*	89.4	93.4	125.2	82.0	69.6	77.7	78.8
9	80.2	87.8	110.0	95.1	95.5	87.5	96.8	128.9	78.9	69.6	79.9	77.1
10	86.1	93.5*	105.1	97.0	88.2	88.3	102.0	129.3*	78.4	70.4	80.5	76.7
11	85.9	99.8	104.3	95.3*	83.1	94.4	104.6	137.5*	77.3	76.2	81.2	74.8
12	86.2	105.6*	97.1	91.7	83.3	99.4	105.6	144.1	79.1	77.9	82.4	74.9
13	84.5	102.8	93.5	89.8	83.3	95.2	106.8*	126.6	76.1	78.0	80.4	73.7
14	81.9	116.3	88.2	88.1	83.3	93.2	104.1	113.2*	77.7	78.2	77.7	72.8
15	82.9	122.9*	84.9	86.7	85.5	92.1	103.6	103.7*	80.0	83.2	77.4	69.7
16	81.8	115.0*	80.3	86.2	91.3	96.6	102.0*	94.9	82.5	88.3	76.5	71.4
17	82.7	101.8	75.8	87.2	91.8	98.8	100.3	83.8	84.6	88.3	74.7	69.3
18	80.2	98.0	75.2	84.4	86.5	95.1*	100.0	81.0	88.5	90.3	75.8	68.3
19	80.0	87.5*	73.0	82.8	87.1	88.8	91.7	75.2	96.0	91.9	74.1	73.0
20	79.6	82.3	72.5	83.8	86.7	82.6	85.9*	75.5	95.6	87.3	73.8	69.5
21	79.1	79.5	71.9	81.4	90.1	81.2*	82.7	73.9	96.2	86.0	74.5	68.9
22	80.0	79.3	72.2	82.3	95.3*	80.6	81.0	72.6	98.7	84.4*	73.6	68.3
23	79.8	73.9	71.5	80.2	98.5	81.0	74.6	74.0	98.1	83.0	72.7	68.3
24	76.6	75.0	71.6	79.1	92.1*	77.4	72.8	74.7	95.9	80.1	71.0	68.6
25	74.3	76.5	72.4	78.8	89.5	75.7	72.8	76.9	94.5	78.9	70.3	69.4
26	72.6	74.9	79.6	79.6	93.1	73.8	75.4	80.7	92.2	75.8	70.5	68.8
27	71.8	75.3	85.1	82.4	87.9	72.7	77.8	80.8	90.8	74.3	70.1	69.4
28	70.4	77.9	87.4	83.0	84.5	71.8	80.7	81.6	86.6	73.7	70.7	68.6
29	71.5	81.6	89.4	89.4*	85.2	72.4	98.7	81.6	83.8	74.1	70.4	
30	72.1	91.7	91.3	93.1*	85.9	74.2	91.5	82.7	82.0	74.5	70.5	
31	72.9		95.1		87.4	75.6		86.7*		76.1	70.1	
MEAN	78.4	86.7	92.6	89.0	95.5	85.1	88.7	97.1	88.3	78.6	75.0	72.4

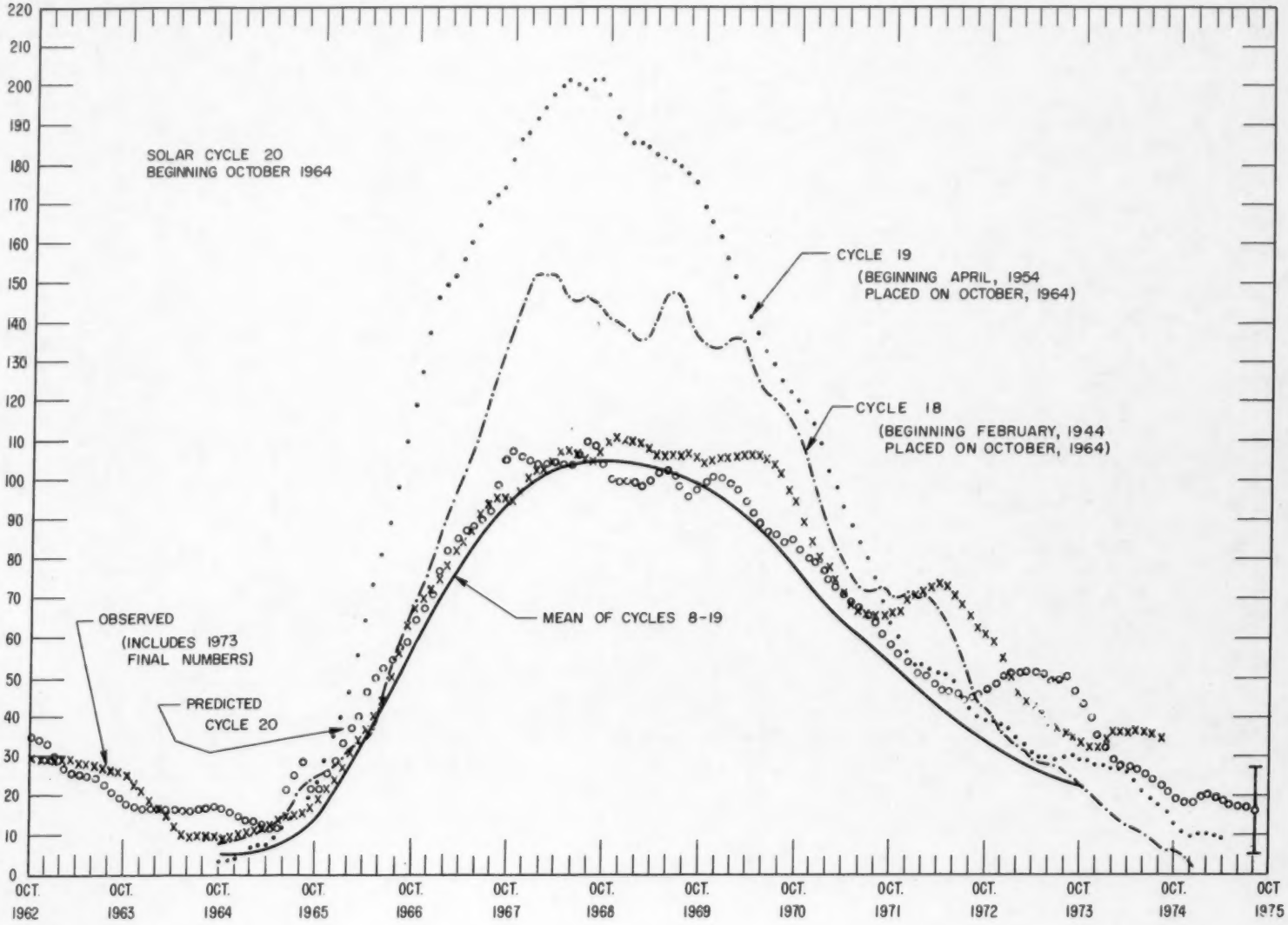
* adjusted for burst

DAILY SOLAR INDICES

FEBRUARY 1975

FEB 1975	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX	SOLAR FLUX ADJUSTED TO 1 A.U.								
			R_Z	$R_{A'}$	OTTAWA 2800	AFCRL 15400	AFCRL 8800	AFCRL 4995	OTTAWA 2800	AFCRL 2695	AFCRL 1415	AFCRL 606	AFCRL 410	AFCRL 245
1	32	6	0	2	72.9	522	282	116	70.8	70.5	46.7	34.3	22.4	8.6
2	33	7	22	17	74.5	517	280	117	72.3	72.3	43.9	34.5	23.7	8.6
3	34	8	28	23	76.5	517	279	119	74.3	73.6	48.4	34.4	22.5	8.7
4	35	9	27	27	77.6	529	277	120	75.4	76.1	49.9	36.5	23.2	8.8
5	36	10	20	25	78.7	525	272	122	76.5	77.7	53.8	36.2	25.2	8.9
6	37	11	26	26	83.4	521	270	124	81.1	78.0	58.4	37.0	28.0	10.5
7	38	12	34	30	81.6	519	271	125	79.4	79.5	54.1	38.3	22.1	13.0
8	39	13	29	32	81.0	527	272	124	78.8	79.9	56.8	38.3	25.4	12.3
9	40	14	22	25	79.2	530	272	122	77.1	77.4	54.8	36.2	24.1	9.1
10	41	15	18	19	78.7	516	275	120	76.7	76.7	51.9	37.3	23.6	8.8
11	42	16	13	20	76.8	524	275	122	74.8	75.7	55.9	37.2	23.8	9.2
12	43	17	18	10	76.9	523	270	121	74.9	75.2	54.3	37.1	24.1	9.7
13	44	18	9	10	75.6	529	268	120	73.7	74.3	51.6	36.5	23.4	8.5
14	45	19	8	6	73.8	522	278	117	72.0	71.3	47.9	35.2	23.8	8.5
15	46	20	8	3	71.5	516	274	116	69.7	70.7	46.3	35.0	23.1	8.4
16	47	21	8	1	73.2	526	270	118	71.4	72.3	48.0	34.9	21.7	8.5
17	48	22	0	0	71.0	531	269	115	69.3	68.6	45.1	34.5	22.4	8.1
18	49	23	0	0	69.9	522	271	117	68.3	69.0	45.7	33.3	21.9	8.0
19	50	24	0	0	71.6	514	266	115	70.0	68.1	44.9	33.3	20.2	7.9
20	51	25	7	5	71.1	525	272	115	69.5	70.0	44.5	34.4	20.4	7.6
21	52	26	8	2	70.4	527	275	114	68.9	68.7	45.0	33.4	20.4	8.0
22	53	27	0	0	69.8	517	273	114	68.3	68.2	42.9	30.8	19.3	7.4
23	54	1	0	5	69.8	516	270	115	68.3	67.2	45.9	31.1	21.3	7.8
24	55	2	12	11	70.1	530	272	116	68.6	67.2	47.4	33.1	21.2	8.0
25	56	3	9	11	70.8	529	269	118	69.4	69.6	45.4	33.3	20.7	7.9
26	57	4	0	3	70.2	526	268	115	68.8	69.5	46.0	33.2	20.0	7.9
27	58	5	0	0	70.7	525	269	115	69.4	68.6	45.2	32.5	19.9	7.5
28	59	6	0	0	69.9	529	273	116	68.6	68.7	44.1	32.8	19.5	7.5
MEAN			11.6	11.2	74.2	523	273	118	72.4	72.3	48.7	34.8	22.4	8.7

* Corrected for burst.



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS
CYCLE 20

MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1964										9.6	10.2	11.3
1965	11.7	12.0	12.5	13.6	14.6	15.0	15.5	16.4	17.4	19.7	22.3	24.5
1966	27.7	31.3	34.5	37.4	40.7	44.6	50.3	56.6	63.1	67.6	70.2	72.7
1967	75.0	78.8	82.2	84.6	87.4	91.3	94.1	95.3	95.3	95.0	97.1	100.6
1968	102.6	102.9	104.7	107.2	107.6	106.6	105.2	104.8	107.0	109.9	110.6	110.1
1969	110.0	109.6	108.0	106.4	106.2	106.1	105.8	106.4	105.4	104.1	104.6	104.9
1970	105.6	106.0	106.2	106.1	105.8	105.3	103.8	101.8	97.2	93.9	89.4	84.1
1971	80.4	77.8	74.4	70.9	68.1	66.7	65.4	64.6	65.8	66.2	66.8	69.4
1972	70.8	71.2	72.4	73.4	72.9	70.5	68.2	65.5	62.2	60.6	58.7	55.1
1973	50.9	46.5	44.2	42.7	40.7	39.1	37.6	36.3	34.7	33.2	32.7	32.6
1974	34.2	36.1	35.7	35.7	36.4	36.2	35.7	34.5	32.3 (2)	30.4 (3)	28.7 (5)	27.4 (5)
1975	26.0 (5)	24.3 (6)	23.0 (6)	21.5 (7)	19.8 (8)	18.6 (9)	17.5 (11)	16.2 (-)	15.3 (-)	14.4 (-)	13.5 (-)	12.5 (-)

For each month, the upper figure is the observed or predicted Zürich smoothed sunspot number. The lower figure in parenthesis is the corresponding absolute value of the 90% prediction interval, an indication of the uncertainty above and below the predicted number. Observed numbers are those with no prediction intervals. The observed smoothed sunspot numbers are based on final Zürich numbers through 1973.

The predicted sunspot numbers are derived from a regression analysis based on cycles 8 through 19. Tests indicate that earlier cycles are from a different statistical population. From July 1968 - February 1970 a regression analysis based on cycles 1 through 19 was used because it had not then been proven that two populations exist.

SOLAR FLARES

PARTIAL LISTING

Solar Flares for which at least one observatory has assigned a numerical importance of "1" or greater.

FEBRUARY 1975

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE FEB	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
RAMY	05	1753	1814	1758	N 4	E58	.772		9.5	21	SN	3	C		.65				F
PALE	05	1755	1821	1803	N 4	E56	.833	13470	9.9	26	1B	2	V		1.24				DE H
PALE	05	1755	1821	1803	N 4	E56	.833	13470	9.9	26	1B	2	C		1.24				DE H
RAMY	11	1301	1315	1306	N 3	W27	.468		9.5	15	SF	4	C		.65				DE
ATHN	11	1301	1307	1303	N 4	W27	.472		9.5	6	SF	5	C		.50				DE
ATHN	11	1301	1307	1303	N 4	W27	.472		9.5	6	SF	4	V		.50				DE
ATHN	11	1301	1307	1303	N04	W27	.472		9.5	6	SF	1		1303	.52	.50			
WEND	11	1315	1340		N02	W26	.449	13470	9.6	25	1N		P		5.16	5.50			

Note: Catania and Capri-S express Maximum Intensities in percent of the local undisturbed chromosphere instead of percent of the local continuum. Parentheses are used to indicate this difference.

"Remarks":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by a high speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the calcium II lines H and K.
P = Flare shows helium D_3 in emission.
Q = Flare shows the Balmer continuum in emission.
R = Marked asymmetry in Hα line suggests ejection of high velocity material.
S = Brightness follows disappearance of filament (same position).
T = Region active all day.
U = Two bright branches, parallel (||) or converging (Y).
V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide Hα line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

SOLAR FLARES

Date, time (UT) and coordinates of Subflares not included in preceding table.

FEBRUARY 1975

02 1310 S12 E61 02 1510 S12 E62 02 1720 S12 E60 03 1020 S09 E58 03 1025 S12 E60 03 1028 S08 E59
03 1031 S12 E48 03 1052 S10 E57 03 1128 S10 E57 03 1133 S10 E57 03 1205 S08 E58 03 1206 S10 E56
03 1211 S08 E58 03 1220 N01 E90 03 1236 N01 E90 03 1245 S10 E56 03 1248 S 7 E56 03 1249 S10 E56
03 1435 S08 E57 03 1515 S08 E56 03 1515 S 6 E58 03 1516 S08 E58 03 1517 S 9 E57 03 1536 S12 E45
03 1547 S10 E56 03 1551 S10 E55 04 2156 N 4 E64 05 0049 N02 E64 05 0655 N03 E62 05 1354 N 4 E53

05 1356E N03 E54 05 1510 S 9 E26 05 1531 N 4 E52 05 1643 N 4 E51 05 1911 N 4 E55 05 1911 N 4 E49
05 1913E N 4 E53 05 1914E N 4 E51 05 1914E N 4 E51 05 2100E N 2 E51 05 2101E N 3 E51 05 2132 N 4 E47
05 2203 N 4 E46 05 2250E N03 E50 06 0227 N03 E49 06 0250 N03 E49 06 0254 N 2 E48 06 0256E N 2 E49
06 0510 N03 E46 06 0510 N03 E46 06 1451 N 1 E38 06 1500 N01 E40 06 1811 N 4 E39 06 1811 N 4 E43
07 0213E N03 E36 07 0959E N03 E31 07 1041E N03 E30 07 1130 N03 E28 07 1206 N02 E27 07 1349 N02 E27

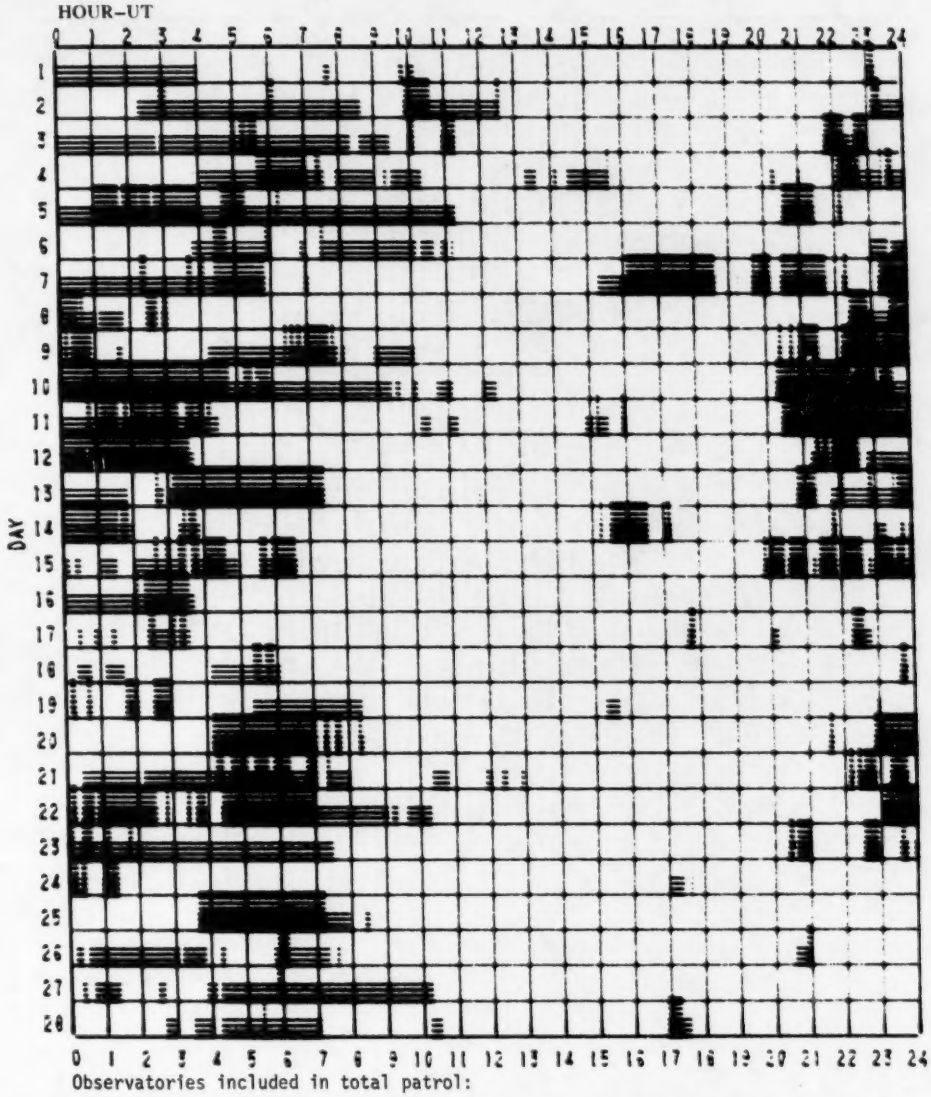
07 1418 N02 E27 07 1419 N03 E27 07 1452 N02 E25 07 1925 S12 W04 07 1926 S12 W 4 07 1926 S12 W 6
08 0742 N02 E18 08 0812 S15 W14 08 0831 S15 W14 08 0958 S15 W13 08 1030 S15 W16 08 1049 S15 W13
08 1120 N06 E15 08 1137 S15 W13 08 1155 S15 W12 08 1505 N05 E12 09 1034 N05 W04 13 1308 N 3 W55
13 1310E N04 W54 13 1310 N05 W59 13 1435 N04 W56 13 1435 N 3 W56 13 1436 N05 W60 13 1455 S10 W78
13 1458 N05 W62 13 2011 N 3 W58 20 1248 N10 W01 20 1305 N10 W02 20 1404 N10 W03 22 1057E N02 W02

22 1318 N02 W04 23 1400 S10 E16 24 0800 S09 E04 24 0830 S09 E03 27 0418E S 8 W31

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

FEBRUARY 1975



Observatories included in total patrol:

Arcetri	Bucharest	Herstmonceux	Mitaka	Tehran
Athenes	Catania	Manila	Palehua	Upice
Boulder	Haute Provence	McMath-Hulbert	Ramey	Wendelstein

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

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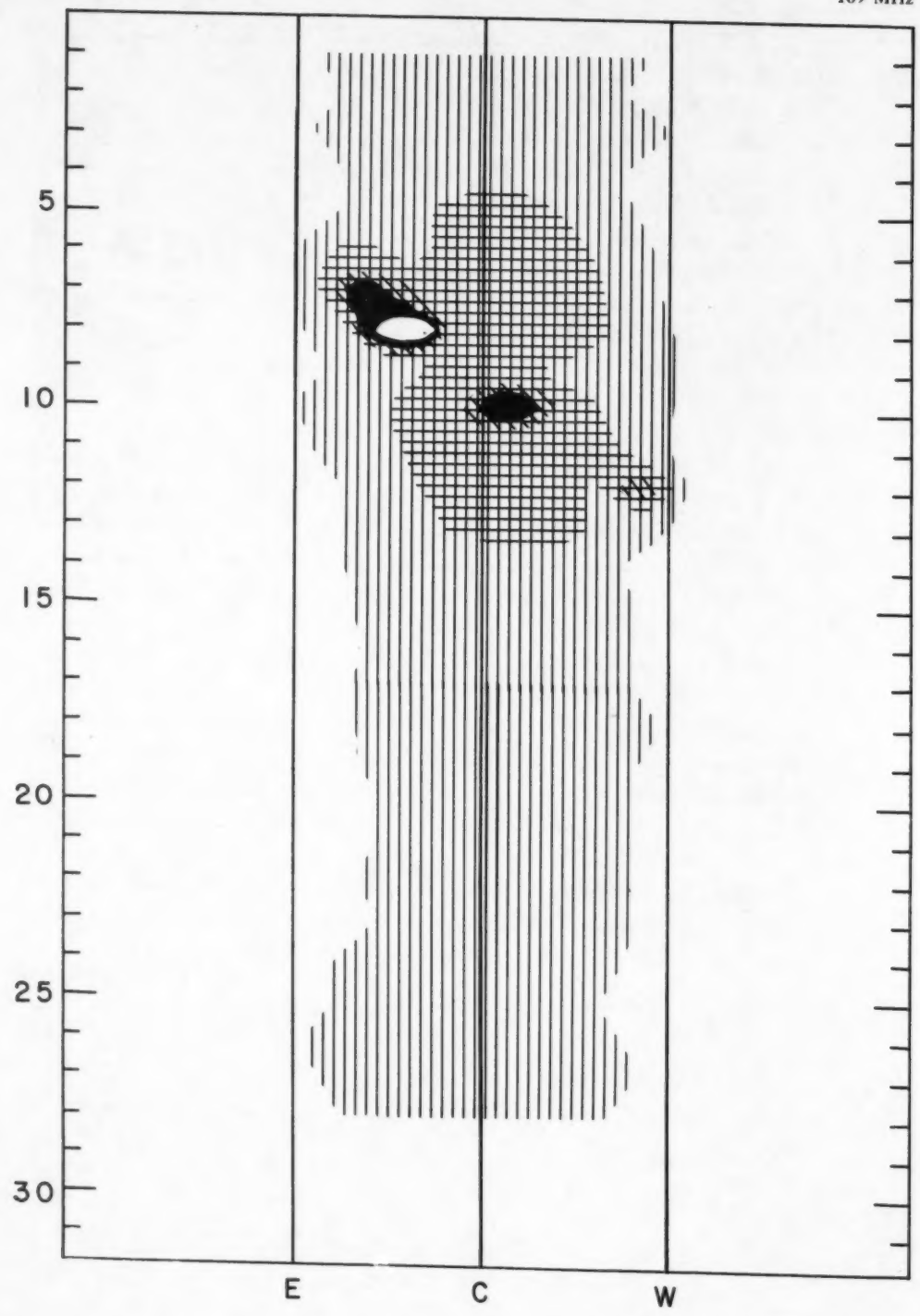
Feb 75

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

FEBRUARY 1975

Nançay

169 MHz

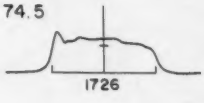
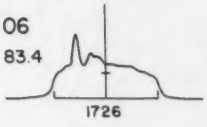
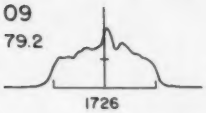
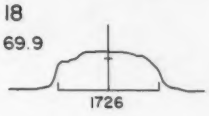
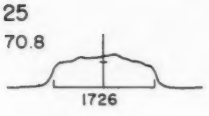
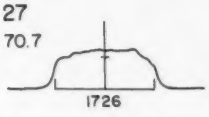
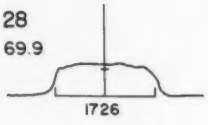


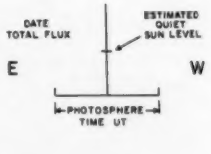
EAST - WEST SOLAR SCANS

February 1975

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution

01	02	03	04
72.9	74.5	76.5	77.6
			
1726	1726	1726	1726
05	06	07	08
78.6	83.4	81.6	81.0
			
1726	1726	1726	1726
09	10	11	12
79.2	78.7	76.8	76.9
			
1726	1726	1726	1726
13	14	15	16
75.6	73.8	71.5	73.2
1726	1726	1726	1726
17	18	19	20
71.0	69.9	71.6	71.1
			
1726	1726	1726	1726
21	22	23	24
70.4	69.8	69.8	70.1
1726	1726	1726	1726
25	26	27	28
70.8	70.2	70.7	69.9
			
1726	1726	1726	1726



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Feb 75

EAST-WEST SOLAR SCANS

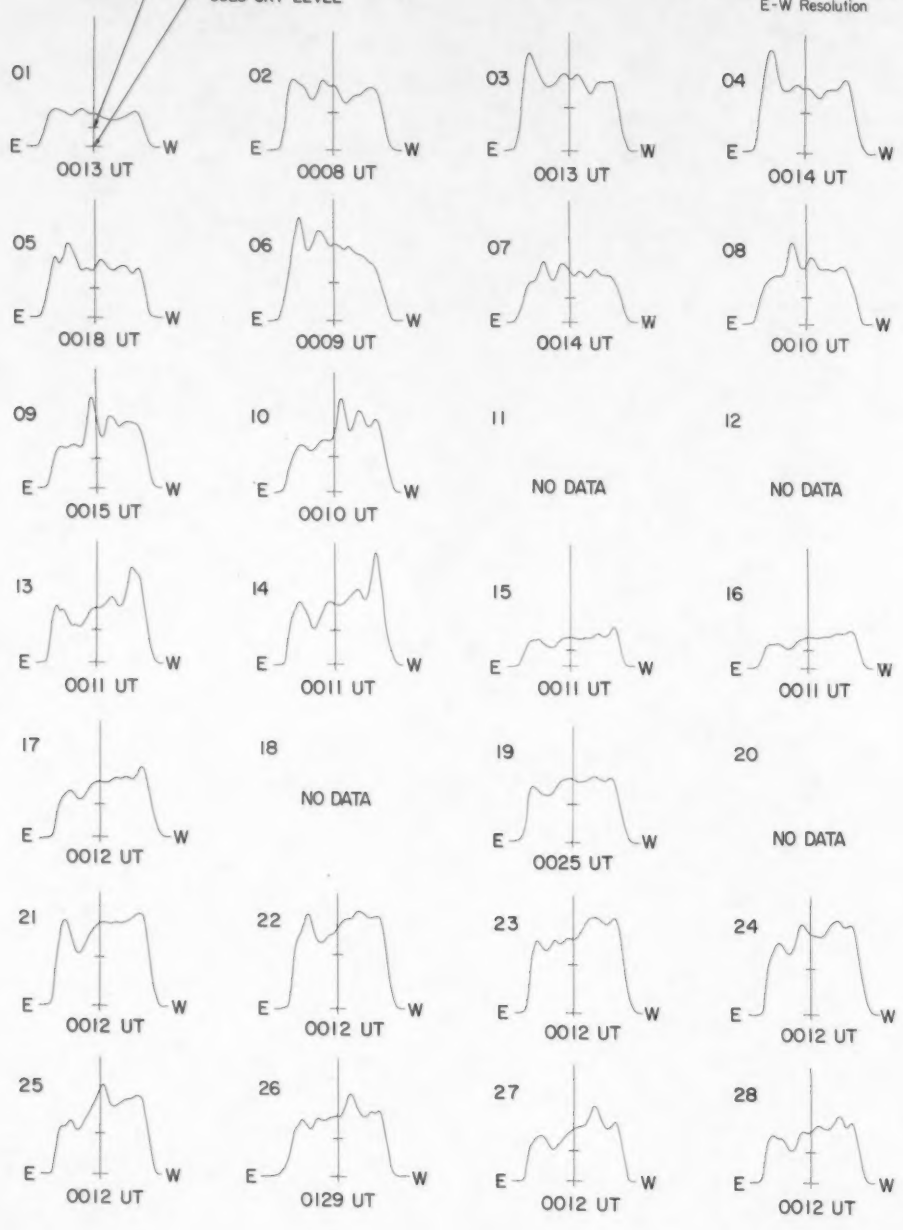
FEBRUARY 1975

Fleurs, Australia

ESTIMATED QUIET SUN LEVEL

COLD SKY LEVEL

21 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



EAST-WEST SOLAR SCANS

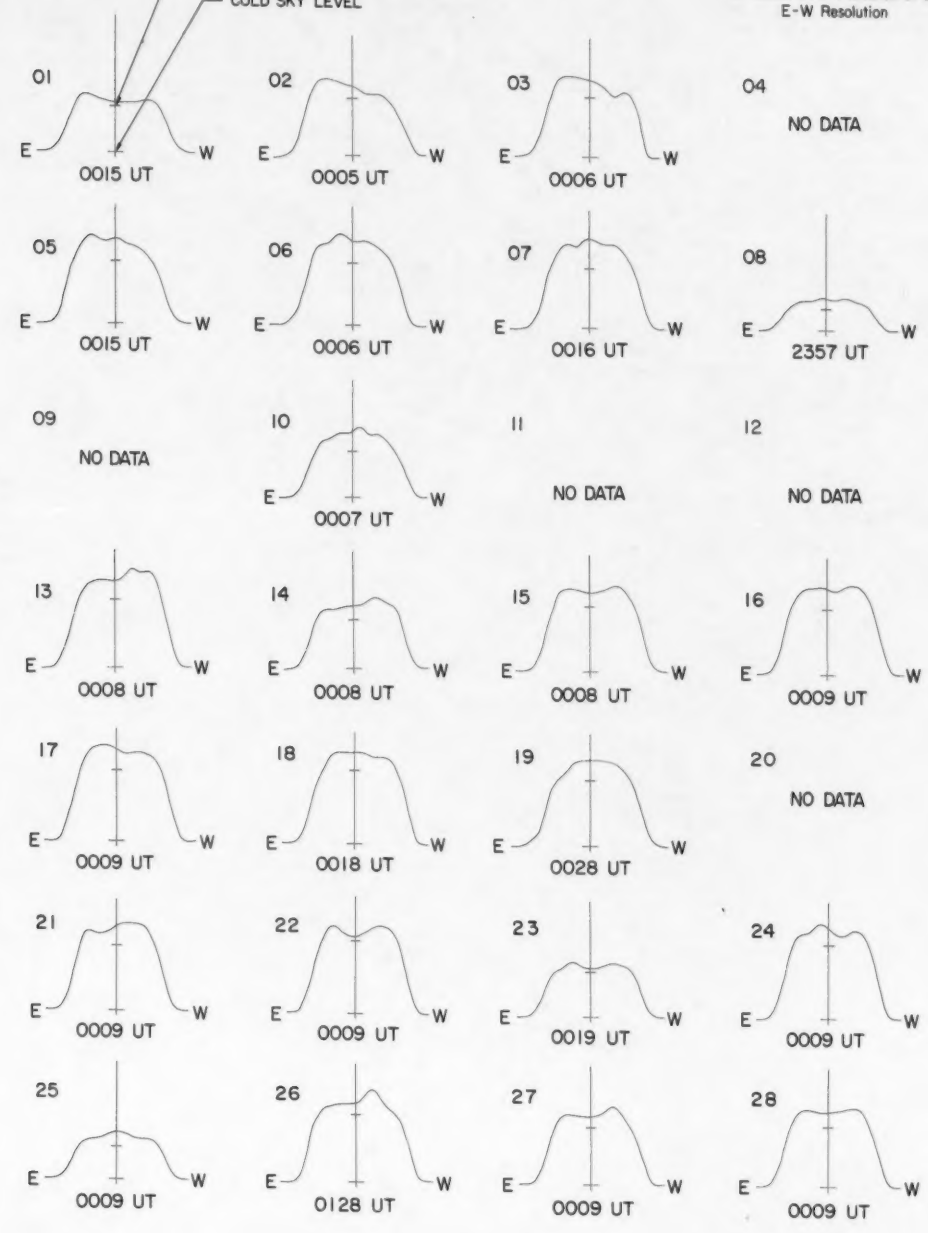
FEBRUARY 1975

Fleurs, Australia

ESTIMATED QUIET SUN LEVEL

COLD SKY LEVEL

43 cm
Fan-Beam with 4 minutes of arc
E-W Resolution



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

FEBRUARY 1975

	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
3	2800	OTTA	2 S/F	1942	1944	3	1.8	0.8		
5	2800	OTTA	27AFRF	1715		135	1.8	1.3		
	2800	OTTA	24 R	1715	1800	45	1.8	0.9		
	2695	BOUL	40 F	1757	1803	6	7	2		
	2800	OTTA	24P R	1800		60	1.8			
	2800	OTTA	26 FAL	1900	1930	30	-1.8	-1		
	2800	OTTA	2 S/F	1912	1913	3	1.6	0.9		
	2800	OTTA	240 R	1950	2140	110	2.8	1.6		
	2695	PENT	24P R	2140		100 D	2.8			
7	2800	OTTA	27 RF	1840		100	0.8	0.7		
	2800	OTTA	24 R	1840	1845	5	0.8	0.4		
	2800	OTTA	24P R	1845		70	0.8			
	2800	OTTA	26 FAL	1955	2020	25	-0.8	-0.4		
11	2800	OTTA	1 S	1540	1540.5	3.5	0.7	0.5		
13	2800	OTTA	1 S	1308	1310	6	4.4	2		
	2800	OTTA	29 PBI	1314	1314	20	1.8	1		
	2800	OTTA	21A GRF	1434.3	1435	16	1.8	0.9		
	2800	OTTA	8 S	1438.4	1438.6	0.4	5.8			
	2800	OTTA	20 GRF	2005	2015	85	1.8	0.9		
18	2800	OTTA	22F GRF	1935	1957	75	1.6	0.6		
	2695	PENT		1935	1957	75				NULL
24	2695	BOUL	1 S	1841	1842	2.5	2	1		
	2695	BOUL	1 S	1851	1852.5	3.5	3	1		

Observatories:

BOUL = Boulder MANI = Manila OTTA = Ottawa ARO PENT = Penticton SGMR = Sagamore Hill

Explanation of Type Code:

1 Simple 1	6 Minor	22 Simple 3F	27 Rise and Fall	32 Absorption	44 Noise Storm in Progress
2 Simple 1F	7 Minor +	23 Simple 3AF	28 Precursor	40 Fluctuation	45 Complex
3 Simple 2	8 Spike	24 Rise	29 Post Burst Increase	41 Group of Bursts	46 Complex F
4 Simple 2F	20 Simple 3	25 Rise A	30 Post Burst Increase A	42 Series of Bursts	47 Great Burst
5 Simple	21 Simple 3A	26 Fall	31 Post Burst Decrease	43 Onset of Noise Storm	48 Major
					49 Major +

SOLAR WIND
Interplanetary Scintillations
FEBRUARY 1975

UCSD 74 MHZ SCINTILLATIONS

DAY	3C48		3C144		3C147		3C161		3C237		3C273		3C298		3C459	
	VEL	ERR	VEL	ERR	VEL	ERR	VEL	ERR	VEL	ERR	VEL	ERR	VEL	ERR	VEL	ERR
1	617	62	471	67	374	40	411	49	0	0	529	89	420	32	0	0
2	419	32	329	91	0	0	0	0	0	0	617	89	777	179	419	88
3	376	77	0	0	0	0	0	0	0	0	632	197	710	229	369	13
4	480	26	545	134	461	55	0	0	0	0	0	0	422	103	369	81
5	541	24	660	99	0	0	0	0	0	0	562	83	626	211	298	72
6	623	196			0	0	0	0	0	0	0	0	381	118	257	43
7	410	41			0	0	0	0	0	0	0	0	0	0	283	39
8	481	68	783	52	0	0	0	0	0	0	619	47	0	0	439	131
9	410	118	0	0	0	0	341	109	0	0	698	323	392	63	339	51
10	325	86	545	31	497	42	483	73	0	0	687	240	590	103	267	20
11	300	84			0	0			0	0			705	253	334	27
12			396	21					0	0	633	64	918	213	0	0
13	352	125	295	16			0	0			678	123	0	0	279	85
14	365	14	240	8	0	0	330	74	0	0	0	0			230	25
15	297	6			0	0	714	294	0	0	0	0			354	59
16	352	59	259	14	0	0	0	0	0	0	0	0	0	0	0	0
21	288	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*22	351	440			0	0	0	0	0	0	0	0	0	0	0	0
23	419	61	402	9			502	77	0	0	0	0	0	0	0	0
24	0	0	413	51	0	0	0	0	0	0	0	0	0	0	0	0
25	539	70			327	34	248	30			0	0	739	260	0	0
26	436	37			0	0	0	0	0	0	679	116	420	45	0	0
27	453	10	401	66			0	0			434	115	0	0	0	0
28	536	38	604	21	610	22	471	109	0	0	397	184	338	127	0	0

FEBRUARY	5				15				25			
	UT	LAT	DIST	DLON	UT	LAT	DIST	DLON	UT	LAT	DIST	DLON
3C48	1.	1.	0.99	-16.	0.	2.	0.94	-19.	23.	6.	0.87	-27.
3C144	4.	-5.	1.20	-12.	4.	-6.	1.17	-13.	3.	-6.	1.12	-15.
3C147	4.	0.	1.20	-10.	3.	0.	1.16	-11.	2.	0.	1.13	-13.
3C161	6.	-12.	1.22	-8.	5.	-13.	1.20	-10.	5.	-14.	1.16	-12.
3C237	9.	-7.	1.29	3.	9.	-7.	1.30	1.	8.	-7.	1.30	-1.
3C273	11.	-5.	1.22	11.	11.	-5.	1.25	9.	10.	-6.	1.27	7.
3C298	13.	-1.	1.12	14.	13.	-2.	1.16	13.	12.	-2.	1.20	11.
3C459	22.	10.	0.58	-52.	21.	15.	0.43	-61.	21.	26.	0.28	-68.

*3C48 OBS AT 0 hr.U.T. BEFORE 21st. AND 23 hr.U.T. AFTER 21st.

Sources as given in the 3rd Cambridge Catalog.

"0" Indicates times when no velocities were obtainable.

SOLAR X-RAYS BY SATELLITE
SMS-1 GOES

FEBRUARY 1975

.5 - 4Å Hourly Averages (10^{-6} watts/m^2 /sec)

DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
7	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B
8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B
9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	M	B	B	B	B	B	B	B
10	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	M	B	B	B	B	B	B	B
11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
18	B	B	B	B	0.06	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
19	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
20	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B
21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
22	B	B	B	B	B	0.03	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	2.30	B	B	B	1.15	B	B	B	0.14
27	B	B	B	B	0.02	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	3.14	B	B	B	0.13
28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

SOLAR X–RAYS BY SATELLITE
SMS–1 GOES

FEBRUARY 1975

1 - 8Å Hourly Averages (10^{-5} watts/m^2 /sec)

DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B
4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	B	-
7	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B
8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B
10	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	M	B	B	B	B	B	B	B
11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
18	B	B	B	B	0.07	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
19	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
20	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B
22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
27	B	B	B	B	0.03	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.07
																									0.07

INFERRED IP MAGNETIC FIELD

BARTELS ROTATION	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1896	1972 MAR 10	A	A	A	A	A	A	A	A	A	A	T	A	T	A	T	A	T	A	T	T	T	T	T	T	T	T	T
1897	APR 6	A	A	T	T	T	T	A	A	A	T	T	T	T	T	T	T	T	T	T	A	T	T	T	T	T	T	T
1898	MAY 3	A	A	A	A	A	A	T	-	A	A	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1899	MAY 30	A	A	A	A	A	*	A	A	A	T	A	*	T	T	T	T	A	A	T	T	T	T	T	T	T	T	T
1900	JUN 26	A	A	A	A	A	A	T	A	A	T	A	A	A	A	A	A	T	A	T	T	T	T	T	T	T	T	T
1901	JUL 23	T	A	A	*	T	A	*	T	A	A	A	A	A	A	A	A	T	A	*	T	A	T	T	T	T	T	T
1902	AUG 19	A	-	A	-	A	A	A	A	A	A	A	A	A	A	T	A	T	A	A	A	A	A	A	A	A	A	A
1903	SEP 15	A	A	T	A	T	*	A	A	A	A	A	A	A	A	T	T	A	T	A	T	A	A	A	A	-	A	-	A	-	A	-	A	-	A	T	T	T	T	T
1904	OCT 12	T	T	A	-	T	A	-	A	A	*	A	T	A	T	A	T	A	A	A	A	A	A	A	A	T	A	T
1905	NOV 8	A	A	T	A	A	T	A	T	A	T	A	T	T	A	T	*	A	A	A	A	A	A	*	T	A	A	T	A	T	A	T	A	T	A	A	T	A	A	A
1906	DEC 5	T	T	T	T	T	A	A	T	T	-	T	-	T	T	T	T	A	A	T	A	-	T	A	T	T	A	T
1907	1973 JAN 1	T	T	T	T	T	T	T	T	A	T	T	T	A	T	A	T	-	A	T	A	A	A	A	A	A	A	A
1908	JAN 28	T	T	A	A	T	T	T	A	T	T	T	T	A	T	T	A	A	A	A	A	A	A	A	A	A	A	A
1909	FEB 24	A	T	T	A	T	T	A	A	T	T	T	T	-	A	T	T	A	A	T	A	A	A	A	A	A	A	A
1910	MAR 23	T	T	T	T	T	T	T	A	T	T	T	T	T	T	T	A	T	A	A	A	A	A	A	A	A	A	A
1911	APR 19	T	T	T	A	T	T	-	A	T	T	T	A	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A
1912	MAY 16	T	T	T	T	T	T	T	T	A	T	T	-	T	-	T	A	T	T	A	A	T	A	T	A	A	A	-
1913	JUN 12	T	A	T	*	-	T	*	-	T	T	A	T	T	A	T	*	T	T	A	T	*	-	T	T	A	T	T
1914	JUL 9	T	T	T	T	A	A	T	T	-	T	A	T	T	*	A	T	*	-	A	A	T	A	A	A	A	A	A
1915	AUG 5	T	T	A	A	A	A	T	A	T	A	A	A	T	T	*	T	A	T	T	T	A	A	A	A	A	A	A
1916	SEP 1	T	T	A	*	T	T	T	T	A	T	A	A	A	T	*	A	A	A	A	T	T	T	T	T	T	T	T
1917	SEP 28	A	A	*	T	A	A	T	A	T	T	T	A	A	A	A	A	A	T	A	A	T	A	*	A	T	T	T
1918	OCT 25	T	T	T	T	A	T	A	A	A	A	T	A	T	*	T	A	T	A	T	A	A	A	A	A	A	A	A
1919	NOV 21	A	*	T	T	T	-	A	A	A	A	T	T	A	T	A	T	*	A	T	A	A	A	A	A	A	A	A
1920	DEC 18	T	T	A	T	A	A	T	A	T	A	T	A	A	*	A	A	A	*	A	T	T	T	T	T	T	T	T
1921	1974 JAN 14	T	A	A	T	-	T	T	A	A	T	A	A	A	A	A	A	-	A	A	-	A	T	-	T	T	A	T
1922	FEB 10	A	-	A	-	A	*	A	A	A	A	A	A	A	A	T	A	T	*	T	T	T	T	T	T	T	T	T
1923	MAR 9	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	A	T	A	A	T	A	A	T	A	T	A
1924	APR 5	A	A	A	A	A	-	T	A	A	A	A	A	A	A	*	A	A	A	A	A	A	A	T	T	T	T	T
1925	MAY 2	-	-	A	A	A	A	*	A	T	T	A	A	T	A	T	*	T	A	A	A	A	T	A	T	T	T	T
1926	MAY 29	T	T	A	A	A	*	-	A	A	A	A	*	A	A	*	-	T	A	*	A	A	A	A	T	T	T	T
1927	JUN 25	T	A	T	A	A	A	-	A	-	A	A	T	A	A	A	A	A	A	A	A	-	T	A	T	A	-	T
1928	JUL 22	T	T	A	A	A	A	A	T	A	A	A	A	A	A	A	A	A	A	A	A	-	T	-	T	-	T	-
1929	AUG 18	A	T	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	T	-	A	T	-	T	-	T	-
1930	SEP 14	A	T	T	T	A	T	A	*	A	A	A	A	A	A	A	A	T	A	A	A	A	T	A	T	T	T	T
1931	OCT 11	T	T	T	A	T	A	A	A	A	A	A	A	A	A	A	A	T	A	A	A	T	A	A	A	T	T	T
1932	NOV 7	T	A	-	T	-	A	-	A	-	A	A	A	A	A	A	A	A	-	A	-	A	T	-	T	A	T	T
1933	DEC 4	T	T	T	A	T	T	A	T	A	A	T	A	T	A	*	A	T	T	*	A	T	A	T	A	*	A	T
1934	DEC 31	T	A	T	T	T	T	A	T	A	A	T	A	T	A	-	A	-	T	A	T	A	A	A	T	-	A	*
1935	JAN 27	T	T	T	T	T	A	T	A	T	T	A	A	*	A	T	-	T	A	A	T	A	T	A	A	T	A	T
1936	FEB 23	T	A	A	A	A	A	*	T	A	A	A	T	A	A	A	T	A	A	A	A	A	A	A	A	A	A	A

T = towards the sun
A = away from the sun
* = effect doubtful or not discernable
- = missing data

The table shows daily inferences of the polarity of the interplanetary magnetic field. The first half of the day is based principally on magnetograms produced by the magnetometer at the Vostok Anarctic Station of the USSR. The magnetometer of the U.S. Air Weather Service operated by the Air Force Cambridge Research Laboratories at the Thule Geopole Station is used for the second half of the day.

Note: Computer problems are responsible for the considerable amount of missing data in August 1974.

SGD 367 Part I (Prompt)

JANUARY 1975 DATA

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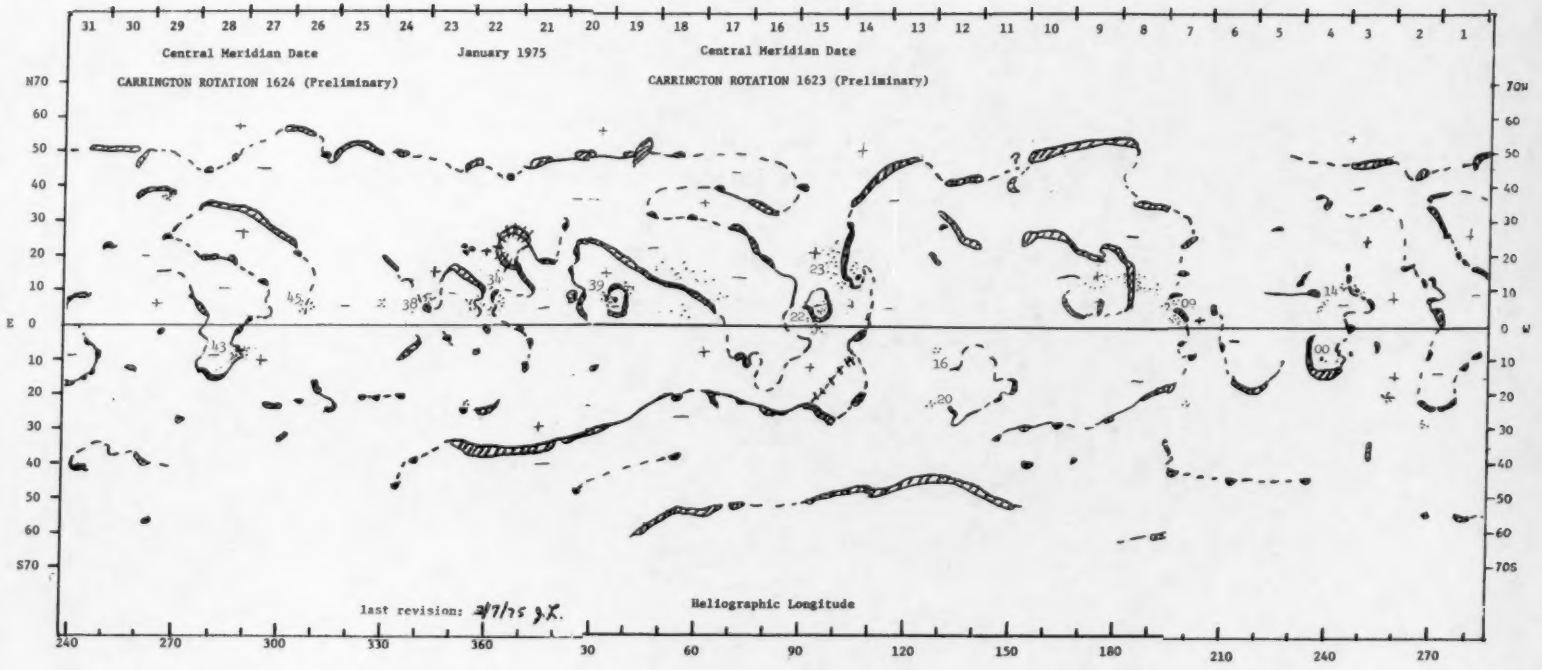
Hα SYNOPTIC CHART

JANUARY 1975



23 Jan 75

JANUARY 1, 1975 (P = 2.32, B_o = -3.00, L_o = 286.18)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

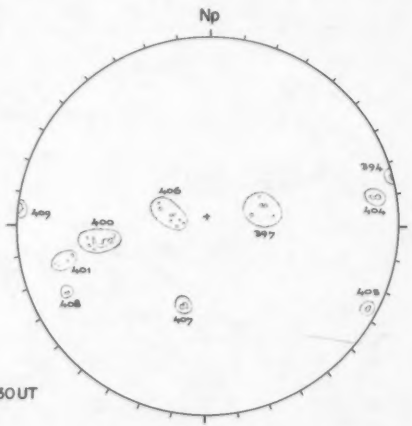
CALCIUM REPORT

Np

E Not Received at time of Publication. The OSO-5 X-ray Spectroheliograms for December, 1974 are published in the Miscellaneous Section (Part II) of this issue. W

Sp

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}



1830 UT

POOR	S
00 - 1000	- 3.5
04 - 0400	- 3.0
09 - 0900	- 2.5

KITT PEAK

Np

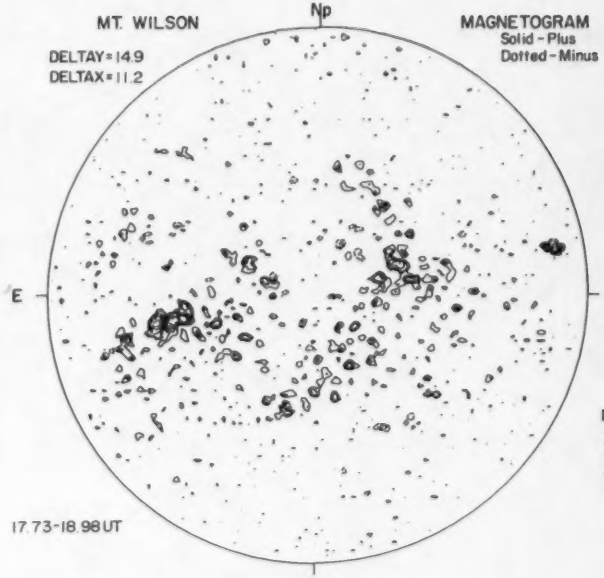
MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

Np

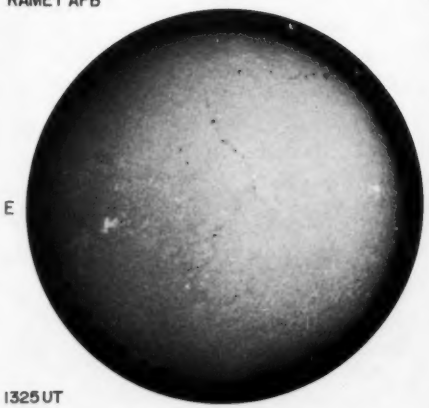
MAGNETOGRAM
Solid - Plus
Dotted - Minus

DELTAY = 14.9
DELTAX = 11.2



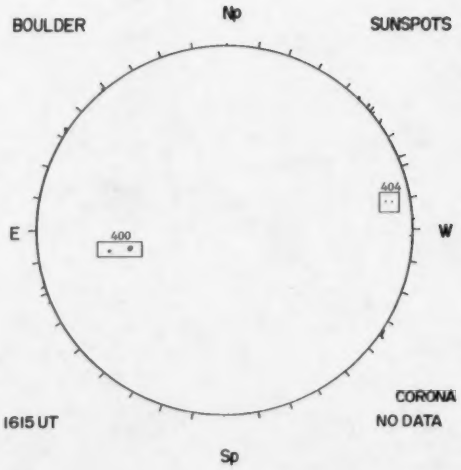
17.73 - 18.98 UT

01
RAMEY AFB



1325 UT

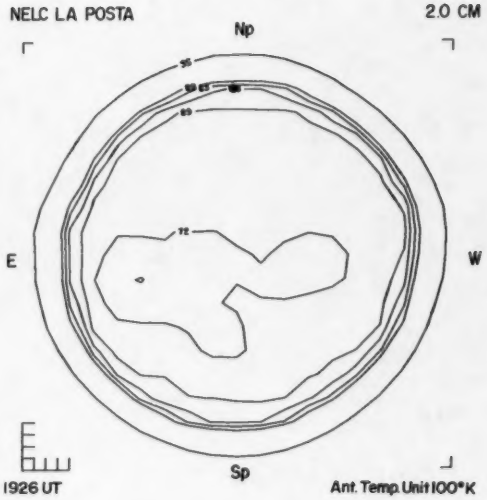
BOULDER



CORONA
NO DATA

1615 UT

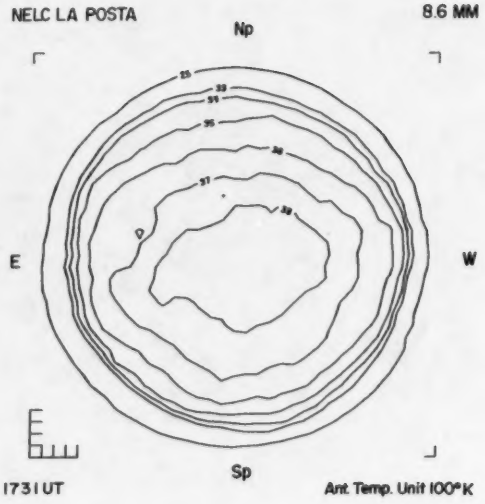
NELC LA POSTA



1926 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



1731 UT

Ant. Temp. Unit 100°K

25
Jan 75

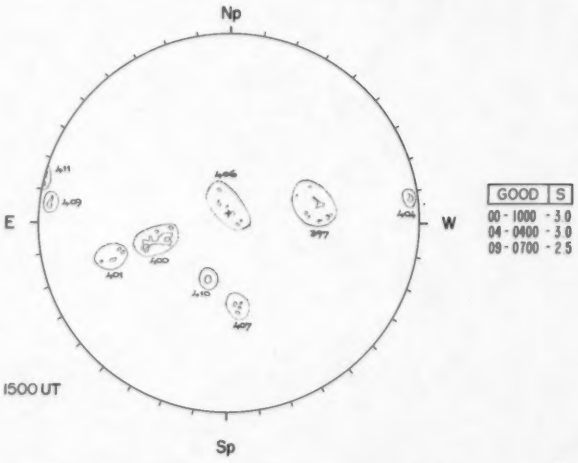
JANUARY 2, 1975 (P = 1.84, B_o = -3.12, L_o = 273.01)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

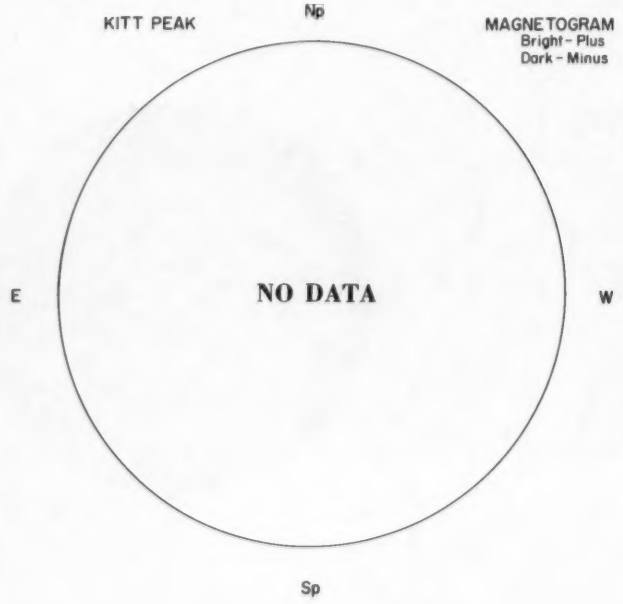


1500 UT

CALCIUM REPORT

GOOD	S
00 - 1000	- 3.0
04 - 0400	- 3.0
09 - 0700	- 2.5

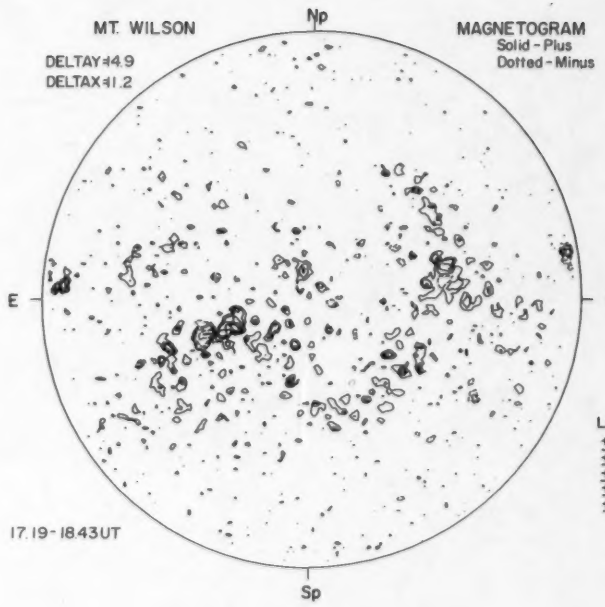
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=44.9
DELTAX=11.2

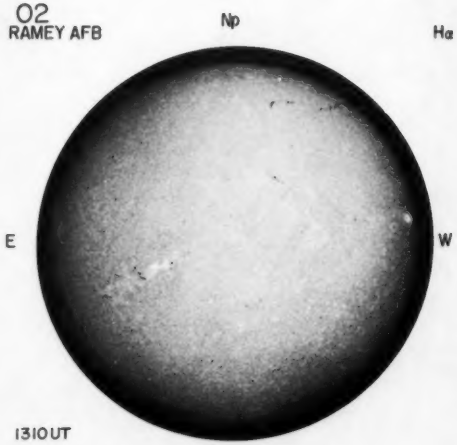


MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

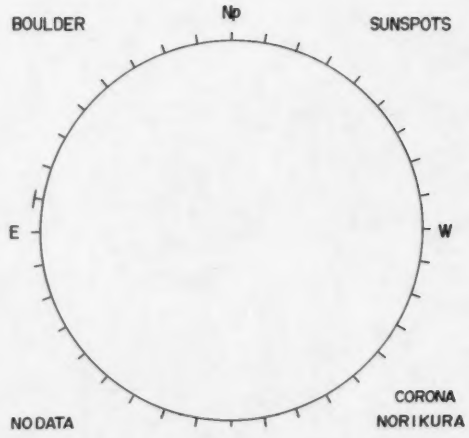
17.19 - 18.43 UT

02
RAMEY AFB

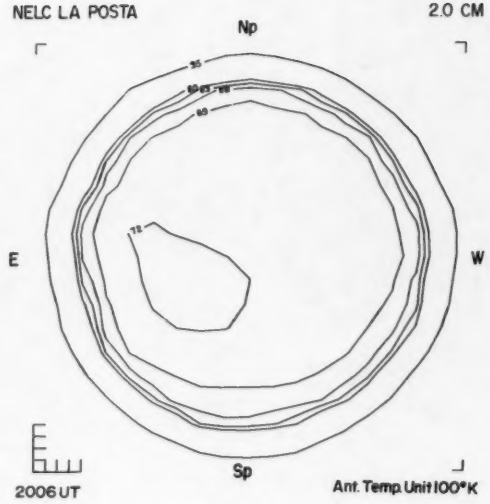


1310 UT

BOULDER

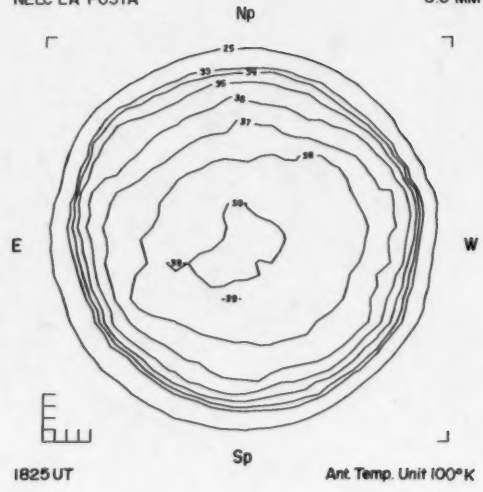


NELC LA POSTA



2006 UT

NELC LA POSTA



1825 UT

27
Jan 75

JANUARY 3, 1975 (P = 1.35, B_o = -3.23, L_o = 259.84)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

Np

E W

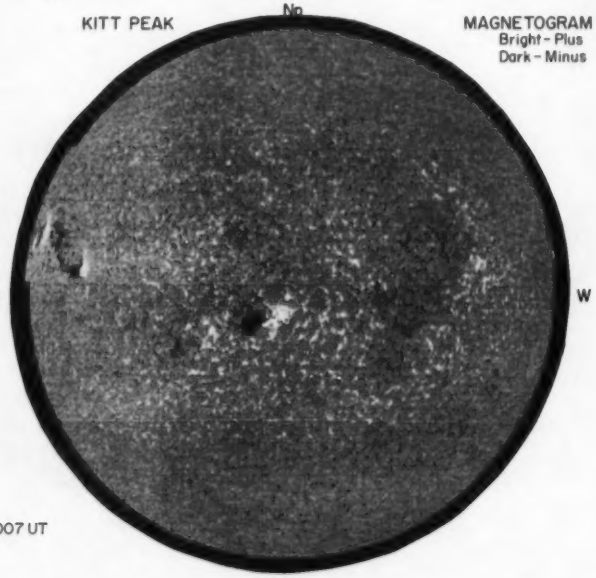
NO DATA

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

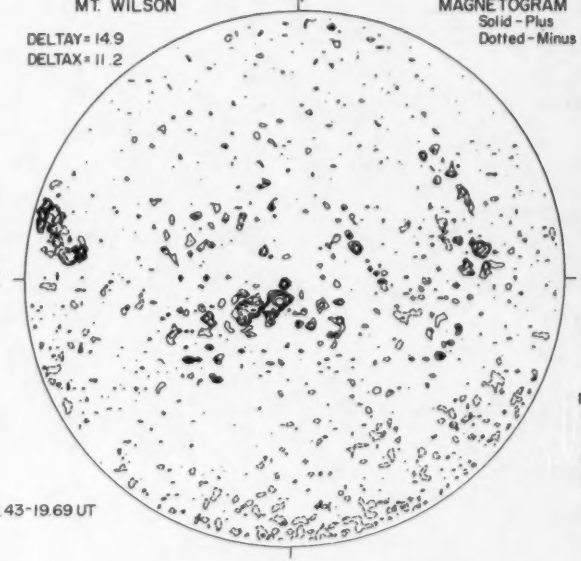


2007 UT

MT. WILSON

DELTAY = 14.9
DELTAX = 11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

18.43-19.69 UT

03

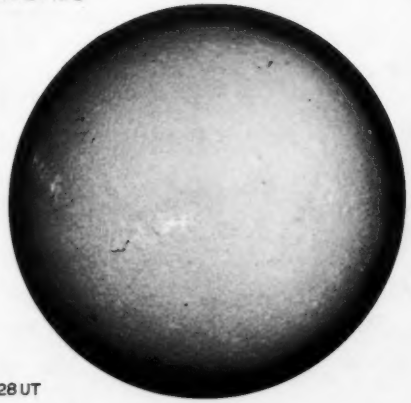
RAMEY AFB

Np

Hα

E

W



1428 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

409

400

1825 UT

CORONA

NO DATA

Sp

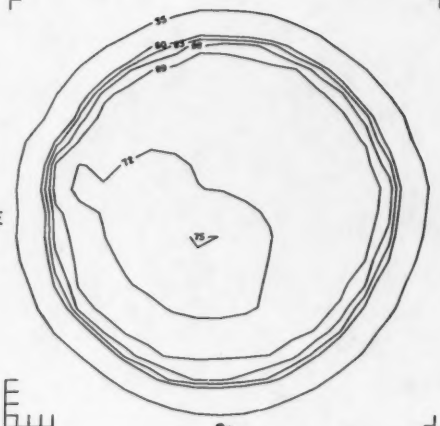
NELC LA POSTA

2.0 CM

Np

E

W



1942 UT

Sp

Ant. Temp. Unit 100°K

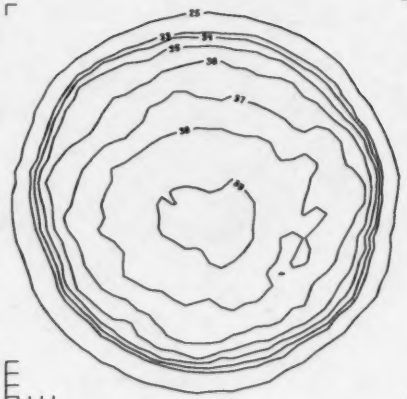
NELC LA POSTA

8.6 MM

Np

E

W



1807 UT

Sp

Ant. Temp. Unit 100°K

29
Jan 75

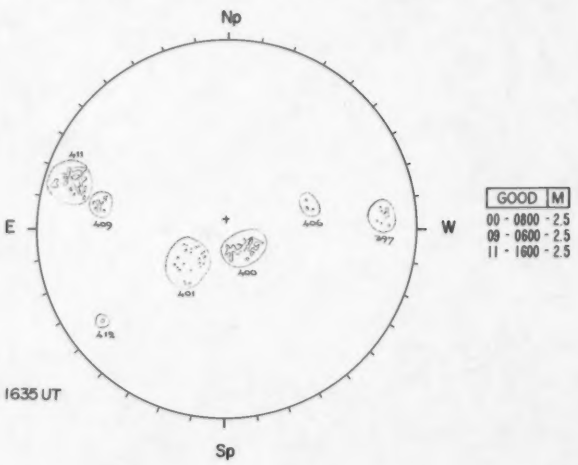
JANUARY 4, 1975 (P=0.87, B_o=-3.35, L_o=246.67)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



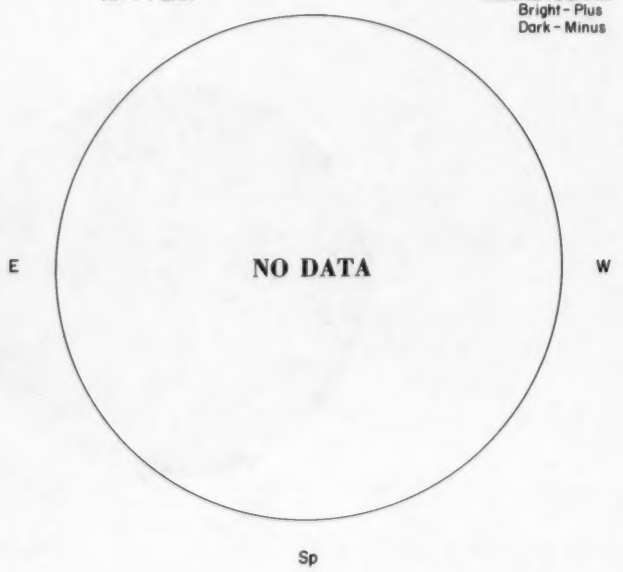
GOOD	M
00 - 0800	2.5
09 - 0600	2.5
11 - 1600	2.5

1635 UT

CALCIUM REPORT

KITT PEAK

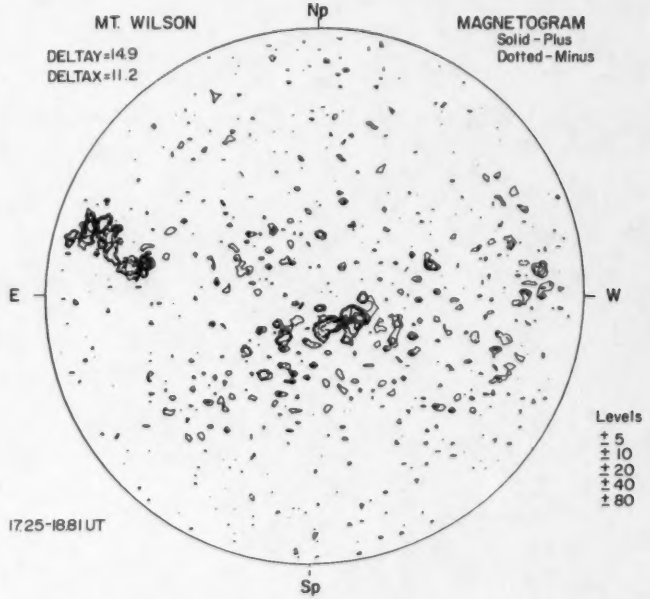
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY=14.9
DELTAX=11.2

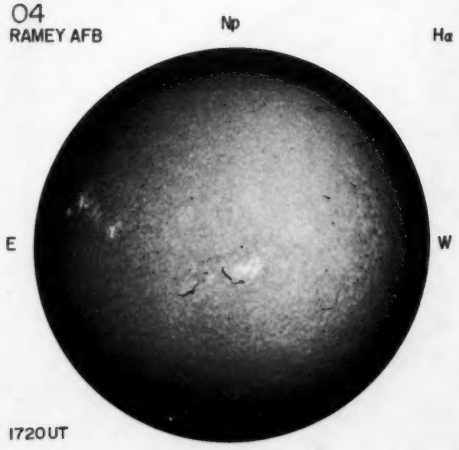
MAGNETOGRAM
Solid - Plus
Dotted - Minus



1725-1881 UT

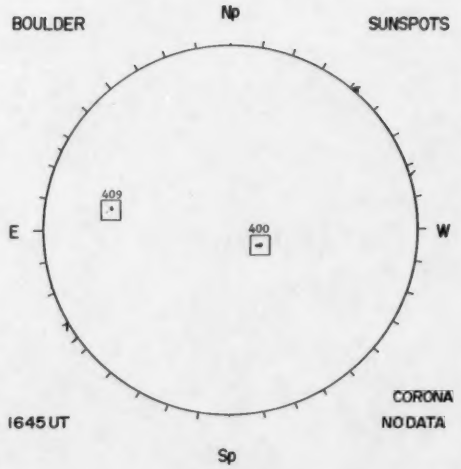
04

RAMEY AFB



1720 UT

BOULDER



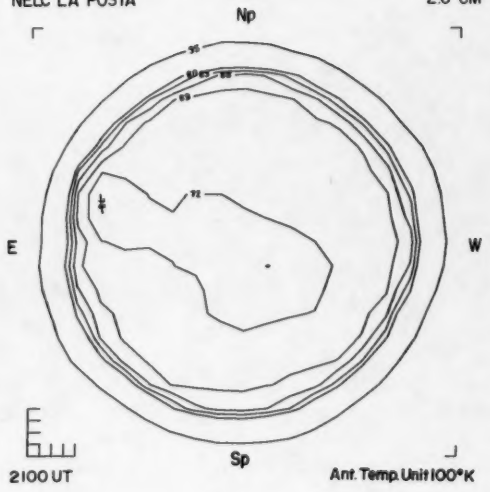
1645 UT

CORONA

NO DATA

NELC LA POSTA

2.0 CM

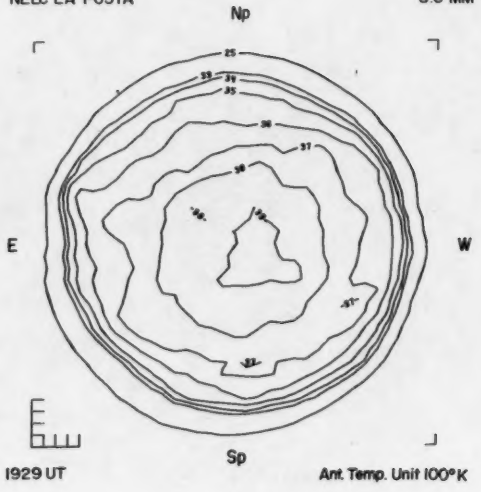


2100 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM



1929 UT

Ant. Temp. Unit 100°K

JANUARY 5, 1975 (P=0.38, B_o=-3.46, L_o=233.50)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

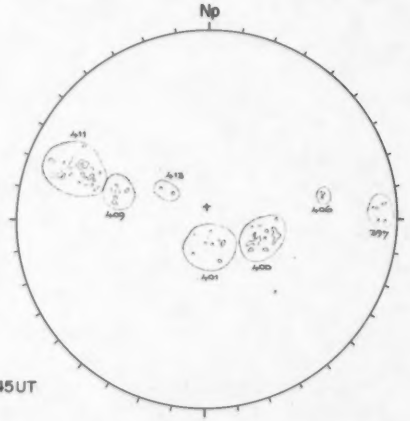
CALCIUM REPORT

Np

E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

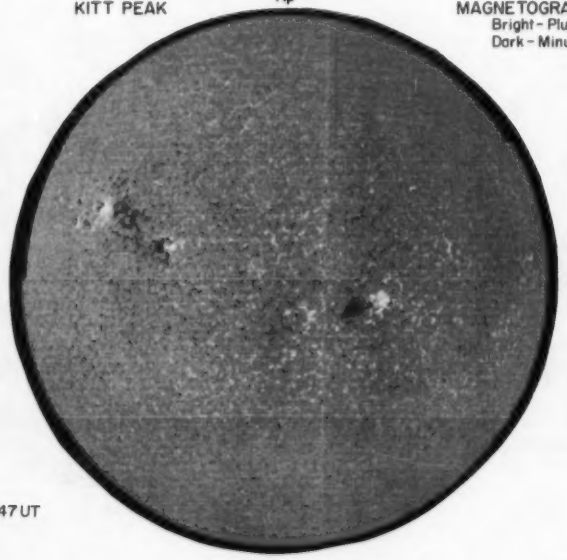


1545UT

FAIR	S
00 - 1100	- 2.5
11 - 1800	- 3.0

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

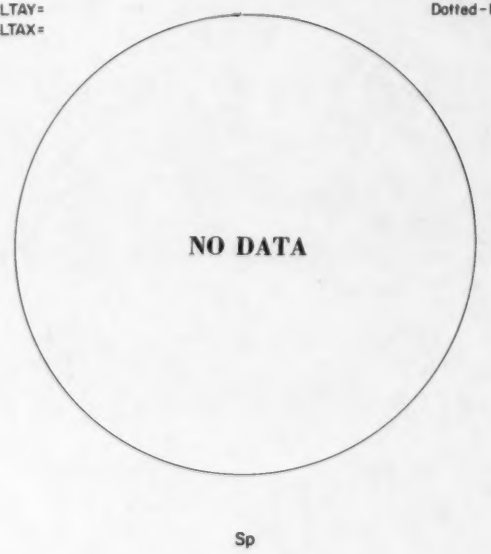


1547UT

MT. WILSON

DELTAY=
DELTAX=

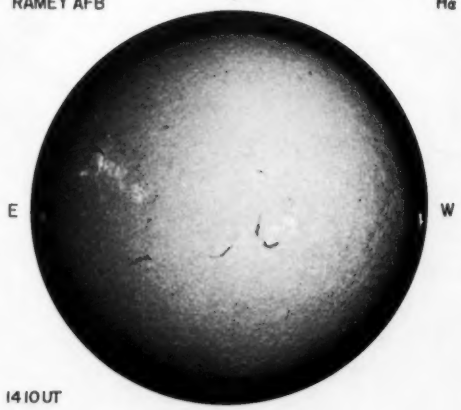
MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

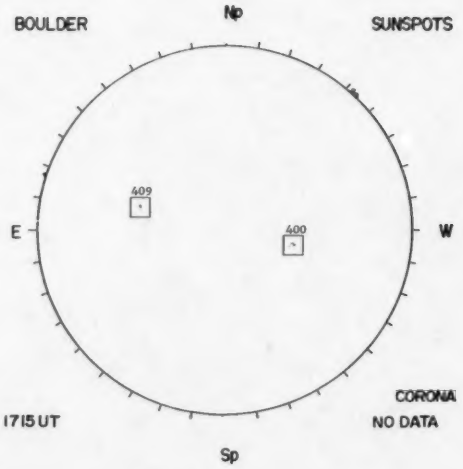
05

RAMEY AFB



1410 UT

BOULDER

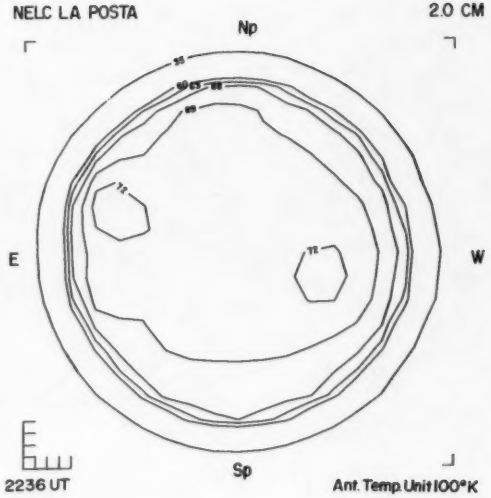


1715 UT

CORONA

NO DATA

NELC LA POSTA



2236 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

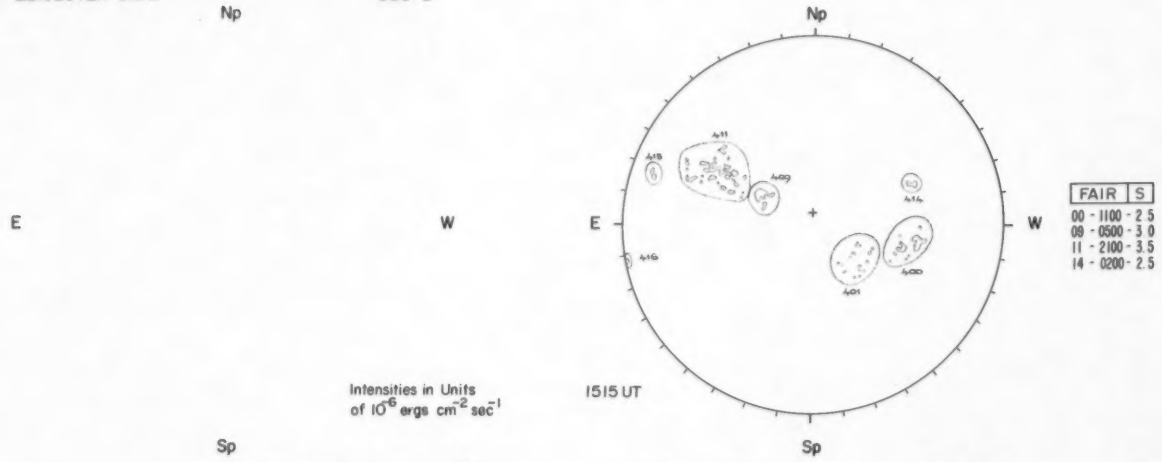
JANUARY 6, 1975 (P=-0.10, B_o=-3.58, L_o=220.33)

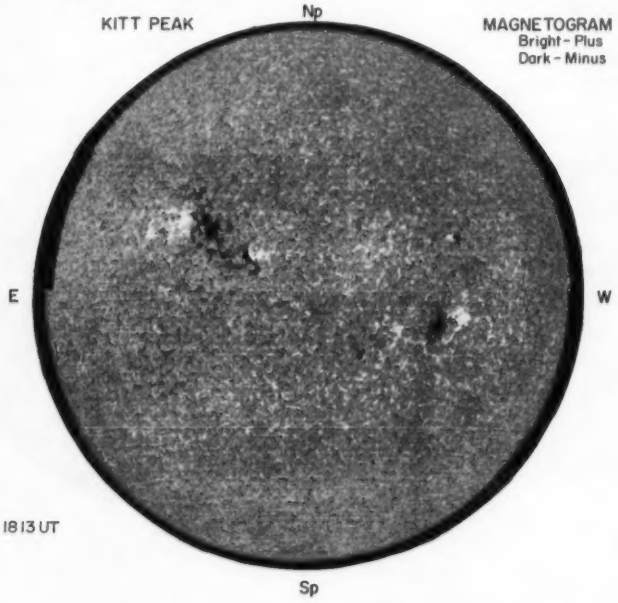
UNIV. COLLEGE LONDON
LEICESTER UNIV.

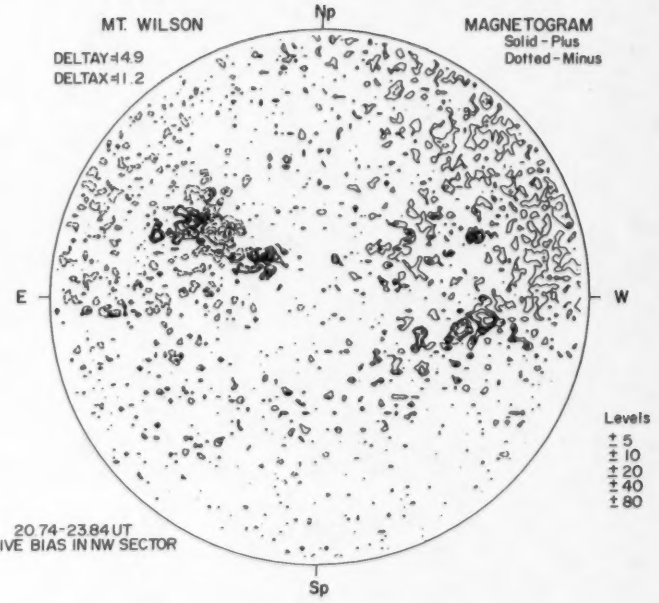
X-RAY
OSO-5

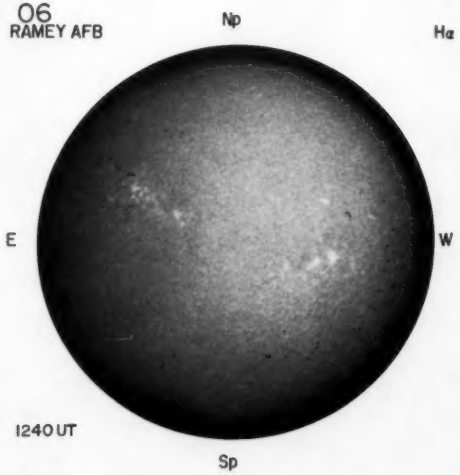
McMATH-HULBERT

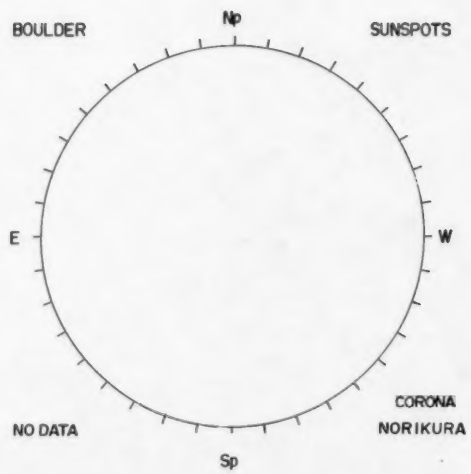
CALCIUM REPORT

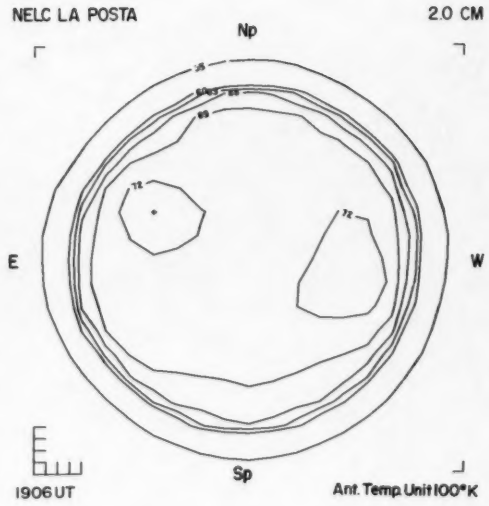


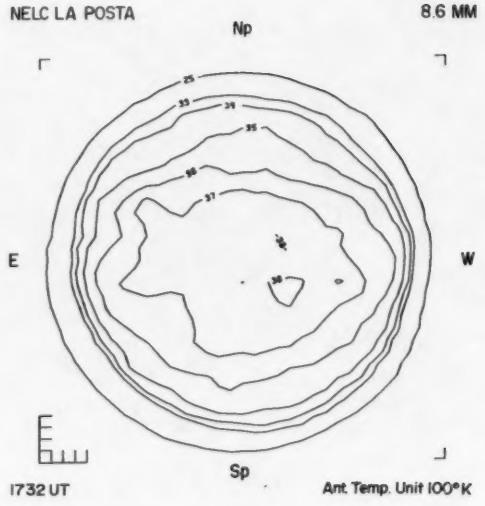





06
RAMEY AFB
Np
Hα
E
W
1240 UT
Sp


BOULDER
Np
SUNSPOTS
E
W
CORONA
NO DATA
NORIKURA
Sp


NELC LA POSTA
2.0 CM
Np
E
W
Sp
1906 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1732 UT
Ant. Temp. Unit 100°K

JANUARY 7, 1975 (P=-0.59, B_o=-3.69, L_o=207.16)

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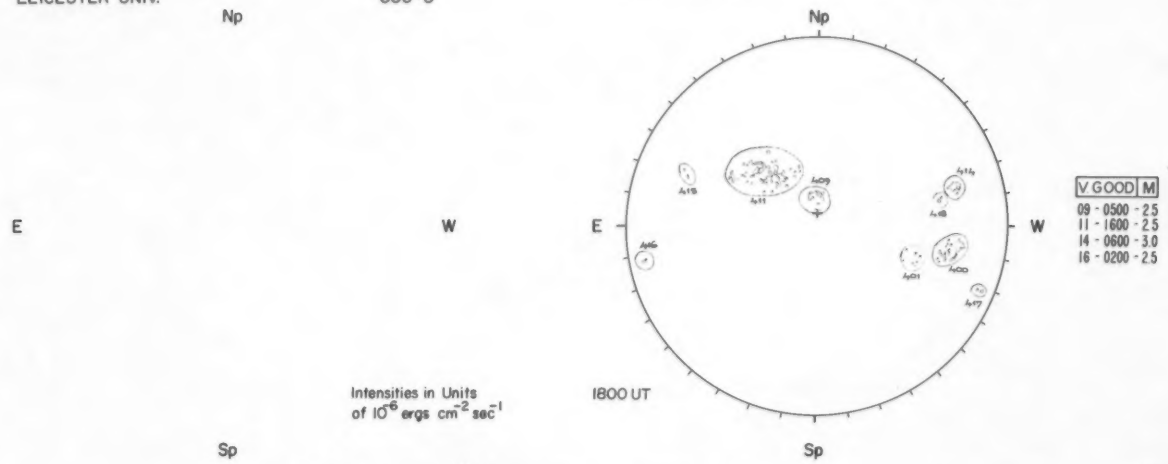
X-RAY
OSO-5

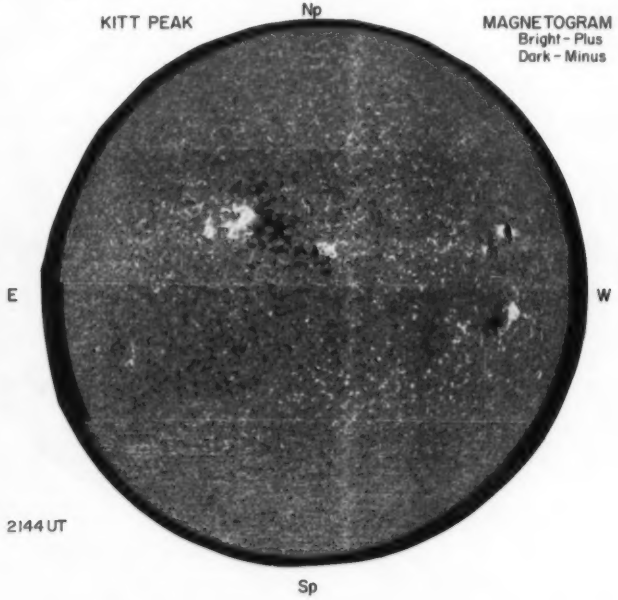
McMATH-HULBERT

CALCIUM REPORT



KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

07

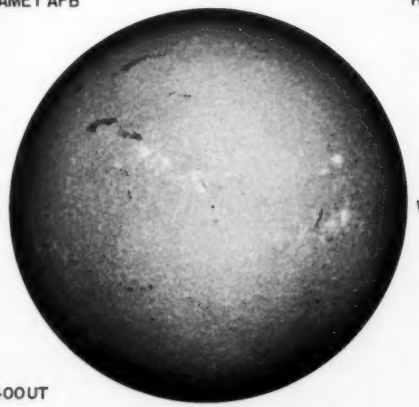
RAMEY AFB

Np

Hα

E

W



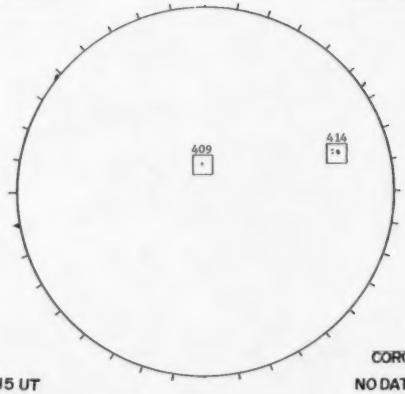
1400 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

CORONA

NO DATA

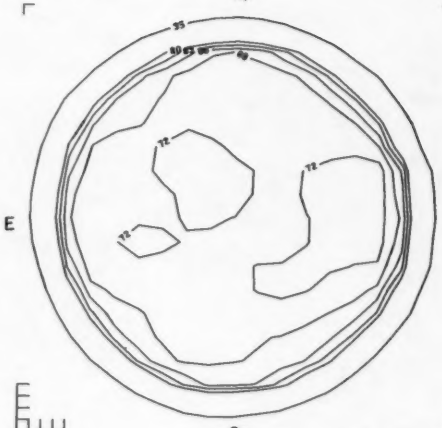
1515 UT

Sp

NELC LA POSTA

Np

2.0 CM



E

W

2233 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

JANUARY 8, 1975 (P=-1.07, B_o=-3.80, L_o=193.99)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

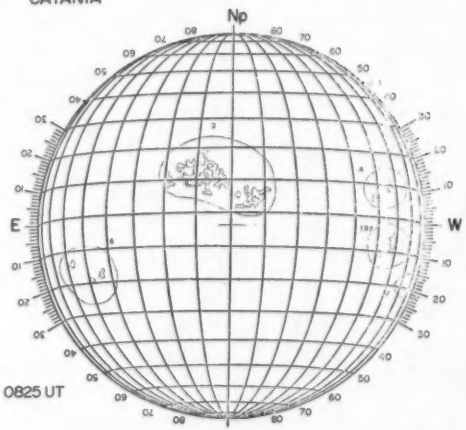
E W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

CATANIA

CALCIUM REPORT

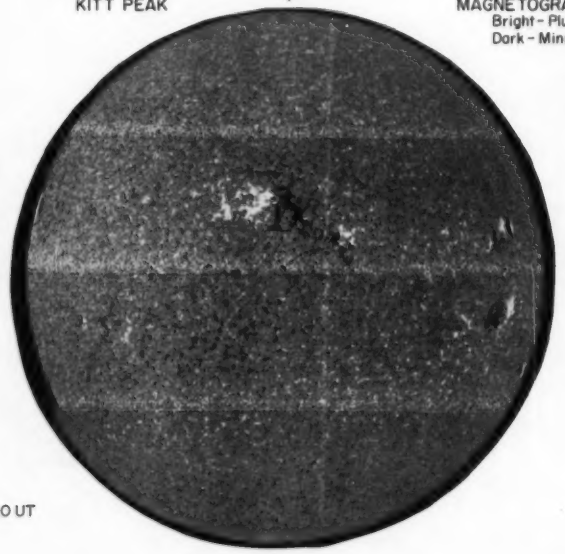


FAIR	EC
04 - 1068	---
02 - 3798	---
06 - 0523	---

0825 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

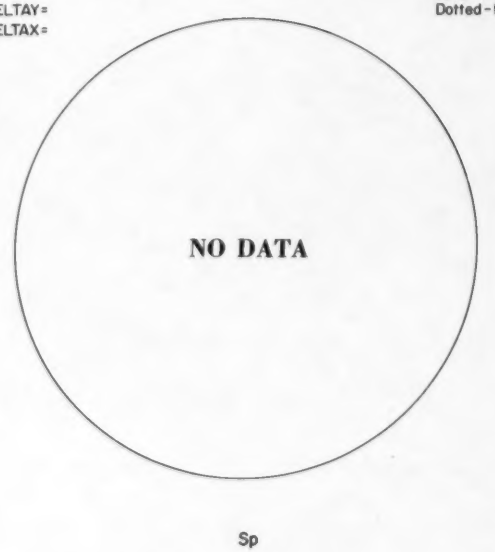


1620 UT

MT. WILSON

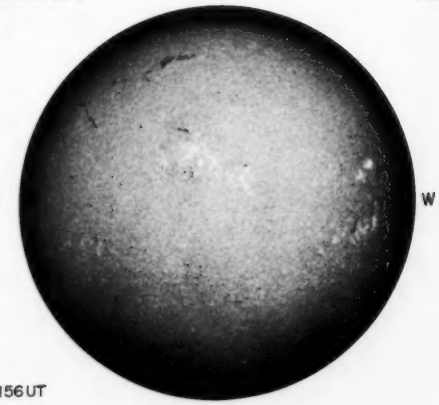
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



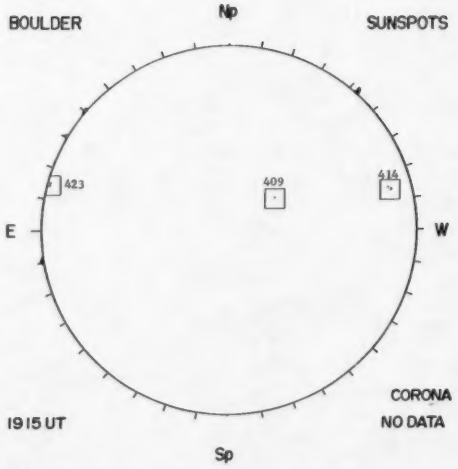
Levels
± 5
± 10
± 20
± 40
± 80

08
RAMEY AFB



1156 UT

BOULDER



1915 UT

CORONA
NO DATA

NELC LA POSTA

NELC LA POSTA

JANUARY 9, 1975 (P=-1.55, B_o=-3.91, L_o=180.82)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

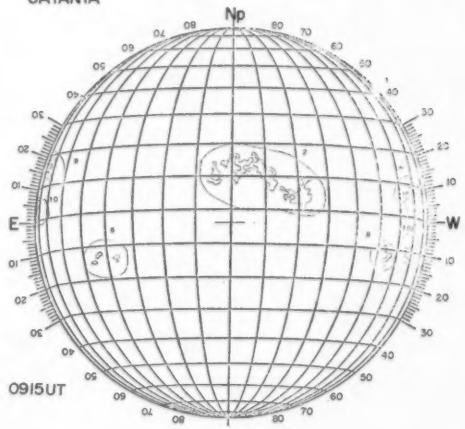
E W

Sp

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

CALCIUM REPORT

CATANIA



FAIR	SS
04 - 0838	---
02 - 4028	---
06 - 0373	---
09 - 2740	---
10 - 2417	---

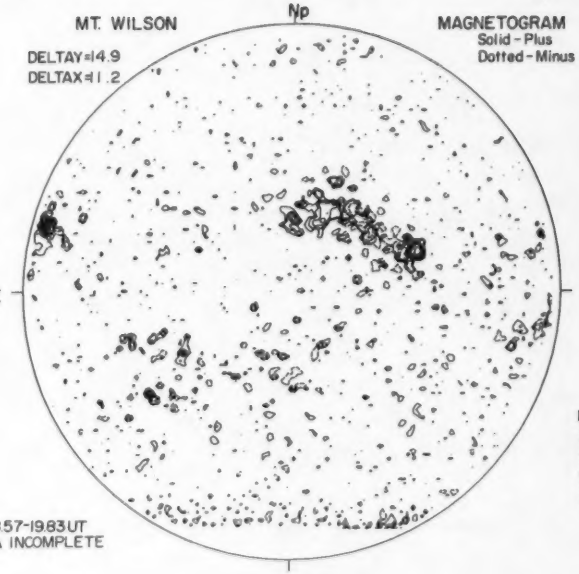
0915UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=14.9
DELTAX=11.2

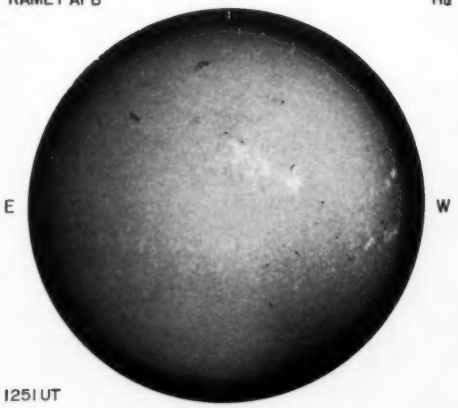


MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

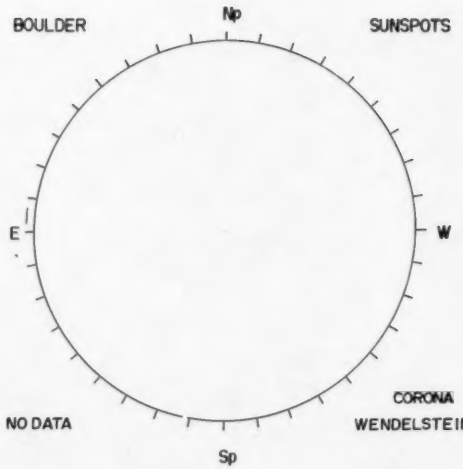
18.57-19.83 UT
DATA INCOMPLETE

09
RAMEY AFB



1251 UT

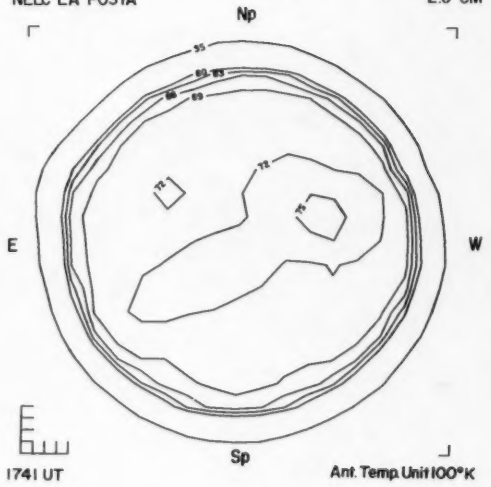
BOULDER



NO DATA

CORONA
WENDELSTEIN

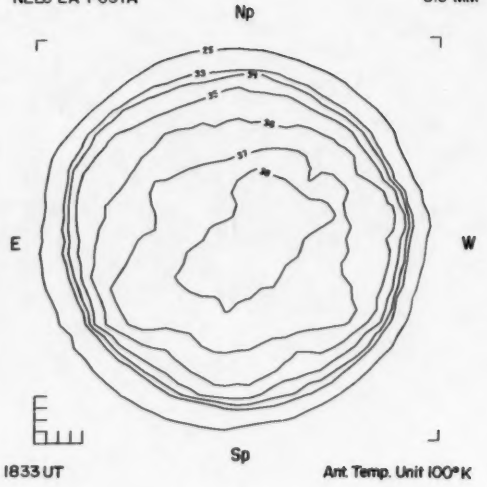
NELC LA POSTA



1741 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



1833 UT

Ant. Temp. Unit 100°K

JANUARY 10, 1975 (P=-2.04, B_o=-4.01, L_o=167.66)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

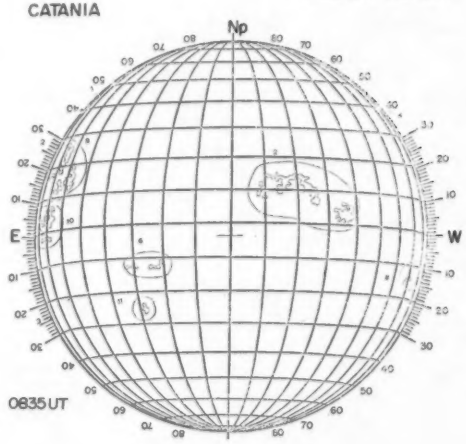
E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

CALCIUM REPORT

CATANIA



0835 UT

FAIR EC
02 - 0852 ---
09 - 3787 ---
10 - 2363 ---

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

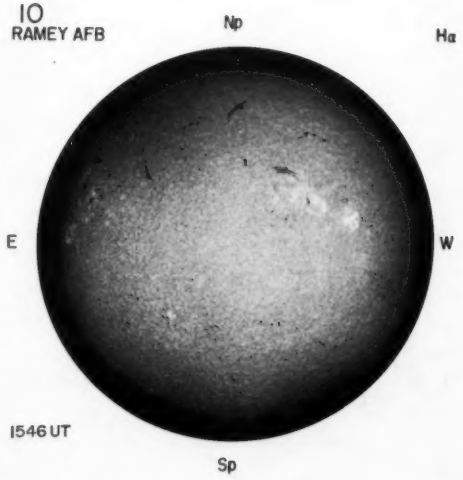
MT. WILSON

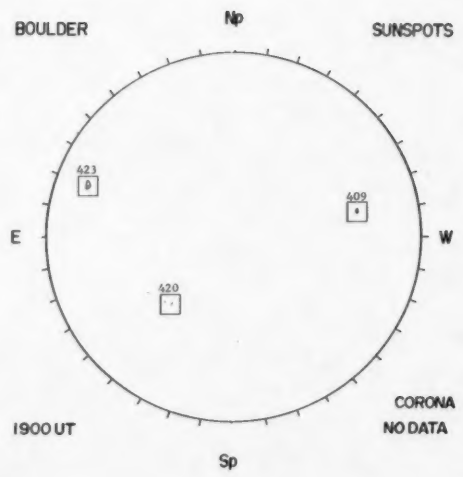
Np

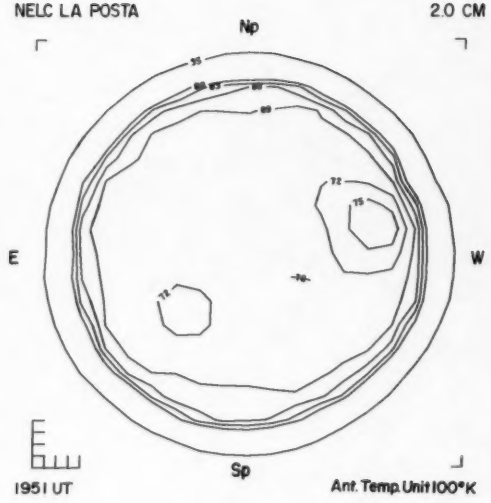
DELTAY=
DELTAX=

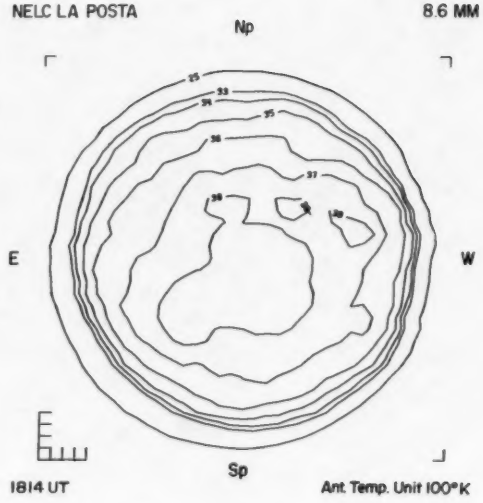
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80


10
RAMEY AFB
Np
Hα
E
W
1546 UT
Sp


BOULDER
Np
SUNSPOTS
423
409
420
E
W
CORONA
NO DATA
1900 UT
Sp


NELC LA POSTA
2.0 CM
Np
E
W
Sp
1951 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1814 UT
Ant. Temp. Unit 100°K

JANUARY 11, 1975 (P=-2.52, B_o=-4.12, L_o=154.49)

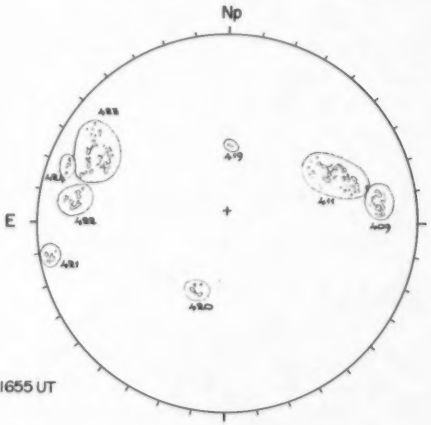
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np
E W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

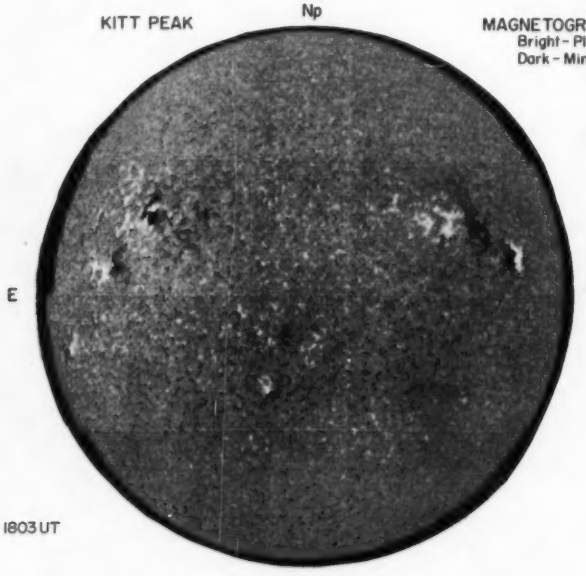


1655 UT

CALCIUM REPORT

FAIR | M
09 - 0800 - 3.0
22 - 0700 - 2.5
23 - 1400 - 3.0

KITT PEAK



1803 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

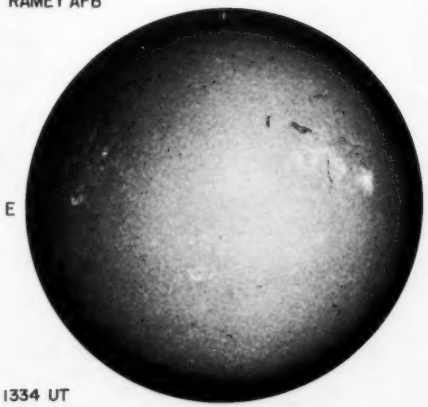
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

RAMEY AFB

Np

Hα



E

W

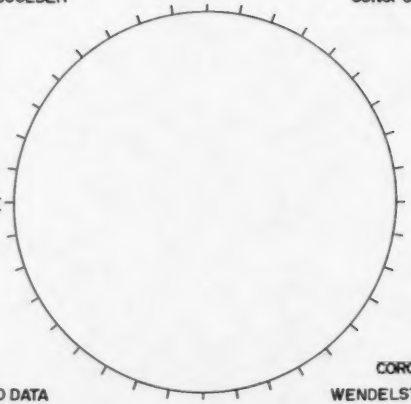
1334 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

NO DATA

CORONA

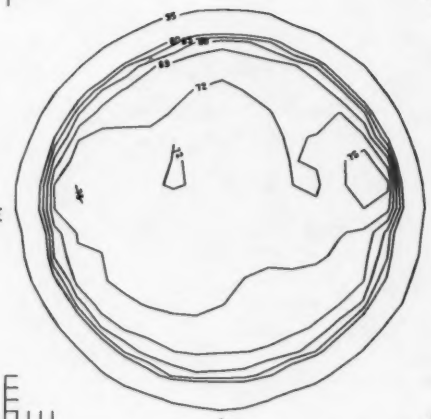
WENDELSTEIN

Sp

NELC LA POSTA

2.0 CM

Np



E

W

1803 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

JANUARY 12, 1975 (P=-2.99, B_o=-4.23, L_o=141.32)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

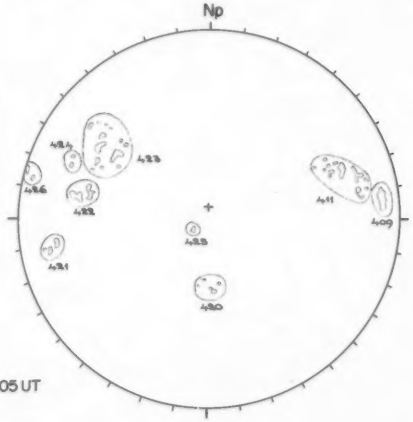
Np

E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



1505 UT

CALCIUM REPORT

POOR	D
09 - 1000	- 3.0
22 - 0800	- 3.0
23 - 1300	- 2.5

KITT PEAK

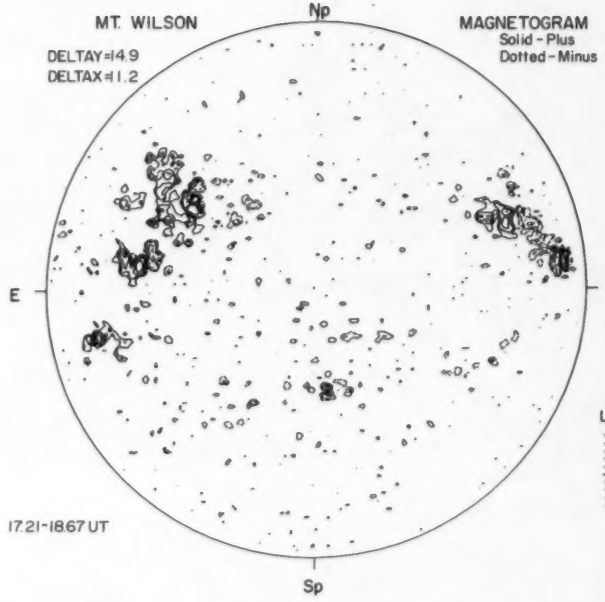
Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=14.9
DELTAX=1.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus



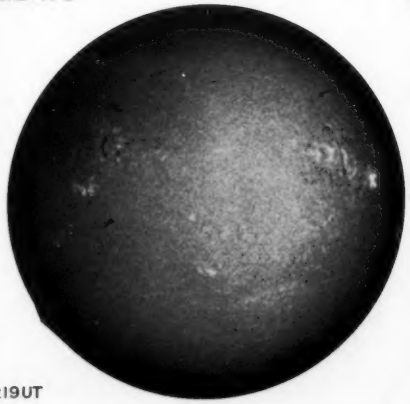
17.21-18.67 UT

12

RAMEY AFB

Np

Hα



E

W

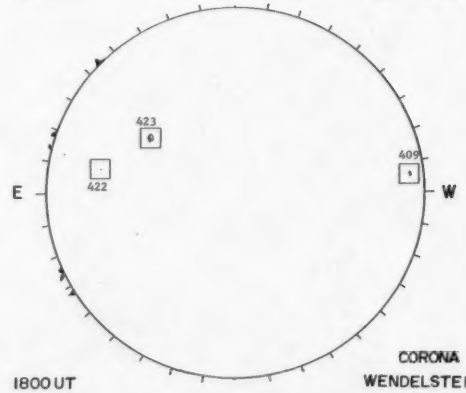
1219UT

Sp

BOULDER

Np

SUNSPOTS



E

W

1800UT

Sp

CORONA

WENDELSTEIN

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

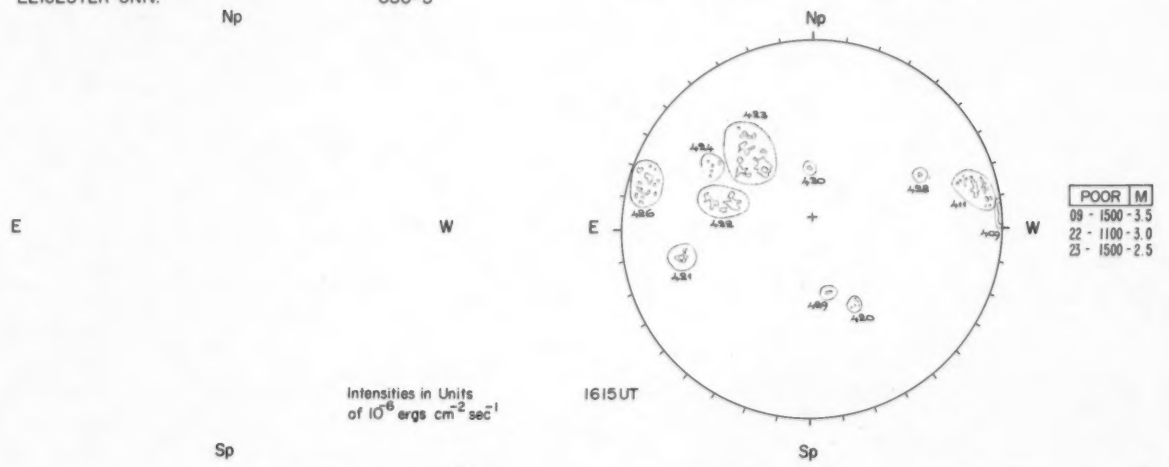
JANUARY 13, 1975 (P=-3.47, B_o=-4.33, L_o=128.15)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

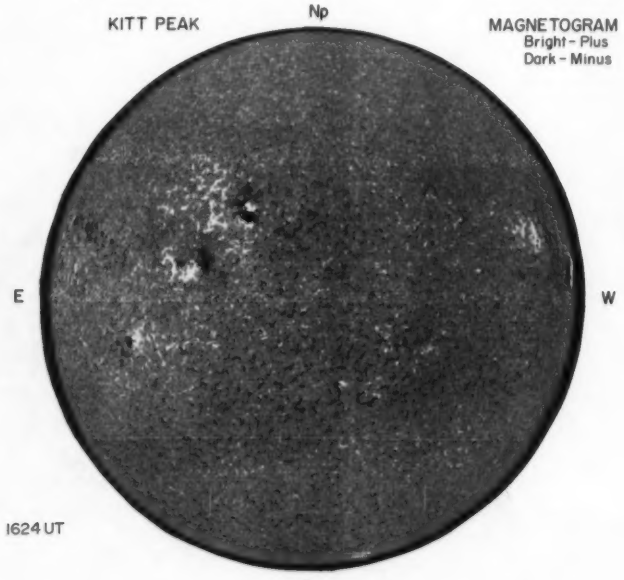


Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1615 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

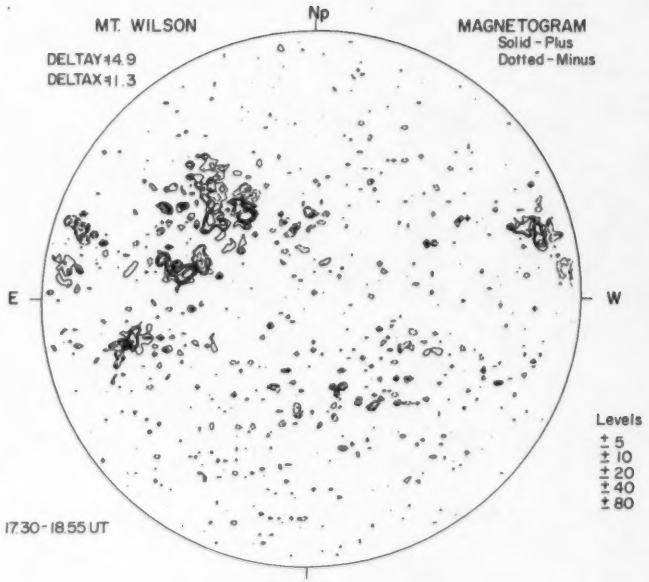


1624 UT

MT. WILSON

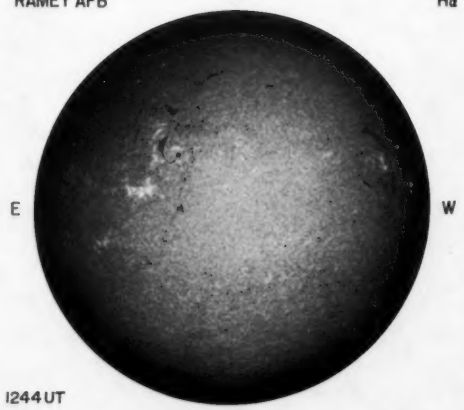
DELTAY=14.9
DELTAX=11.3

MAGNETOGRAM
Solid - Plus
Dotted - Minus



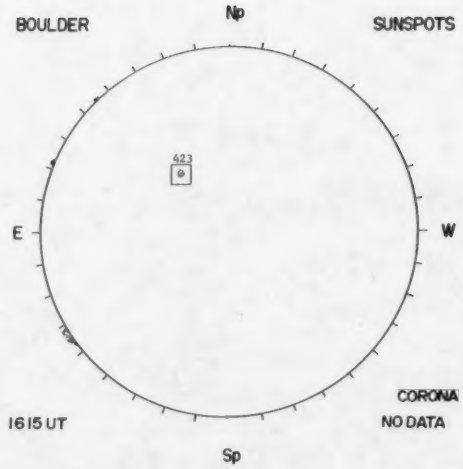
1730 - 1855 UT

13
RAMEY AFB



1244 UT

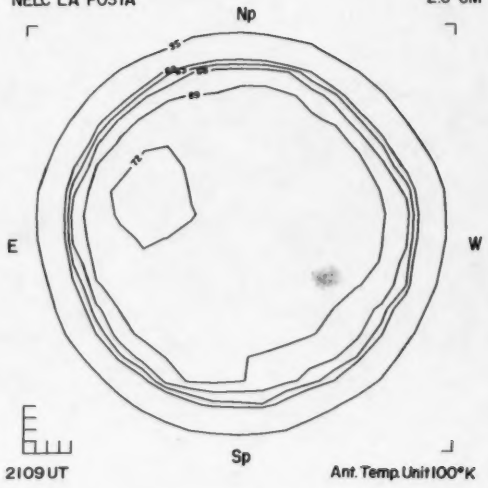
BOULDER



CORONA
NO DATA

1615 UT

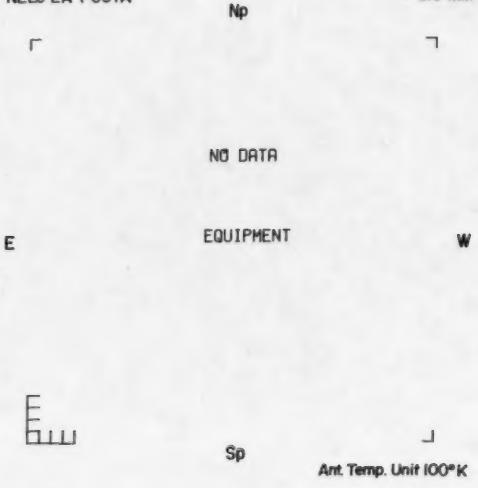
NELC LA POSTA



2109 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



Ant. Temp. Unit 100°K

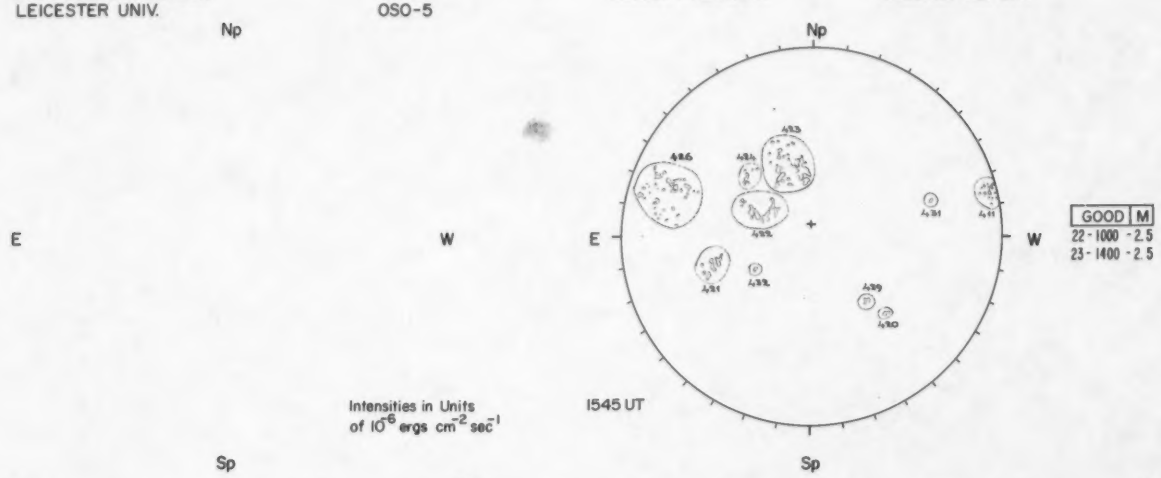
JANUARY 14, 1975 (P=-3.94, B_o=-4.43, L_o=114.98)

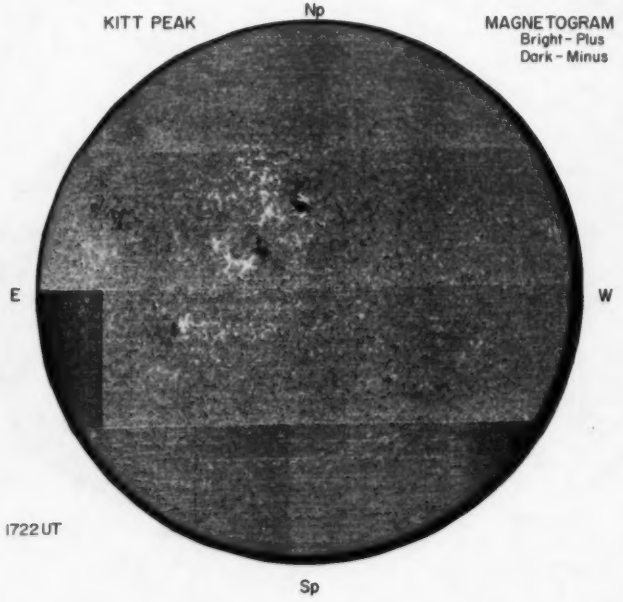
UNIV. COLLEGE LONDON
LEICESTER UNIV.

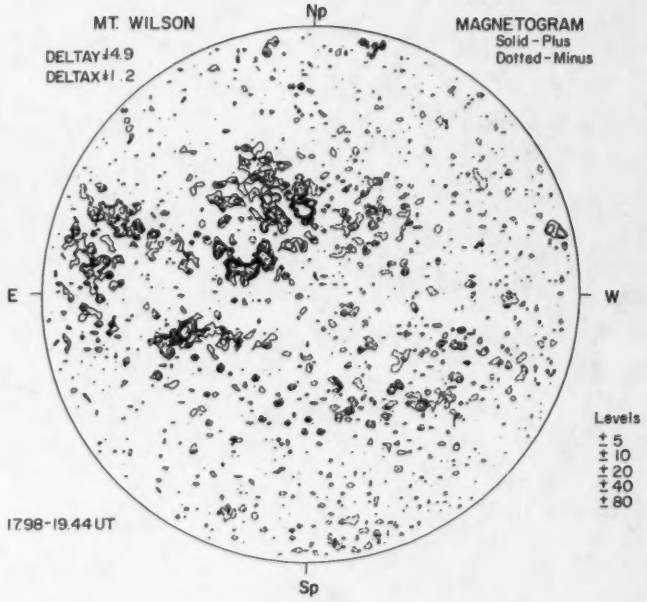
X-RAY
OSO-5

McMATH-HULBERT

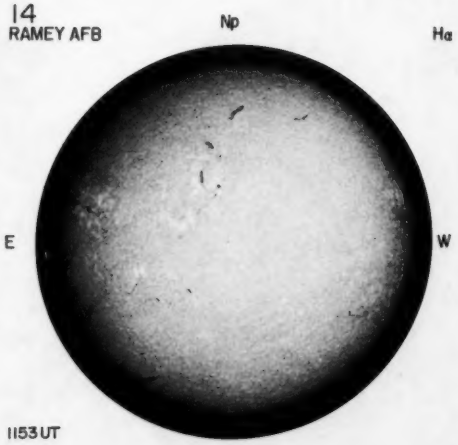
CALCIUM REPORT





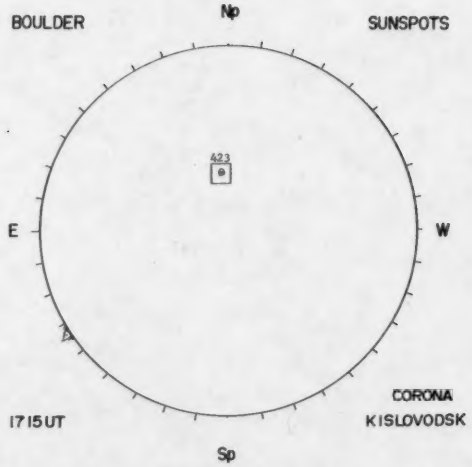


14
RAMEY AFB



1153 UT

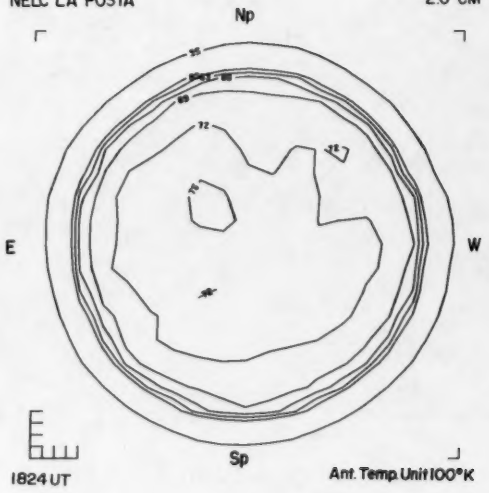
BOULDER



1715 UT

CORONA
KISLOVODSK

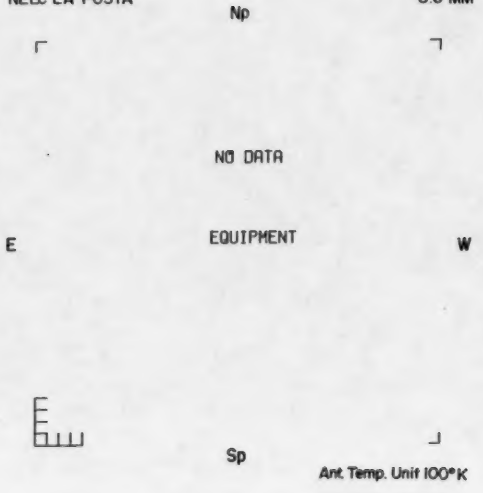
NELC LA POSTA



1824 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



Ant. Temp. Unit 100°K

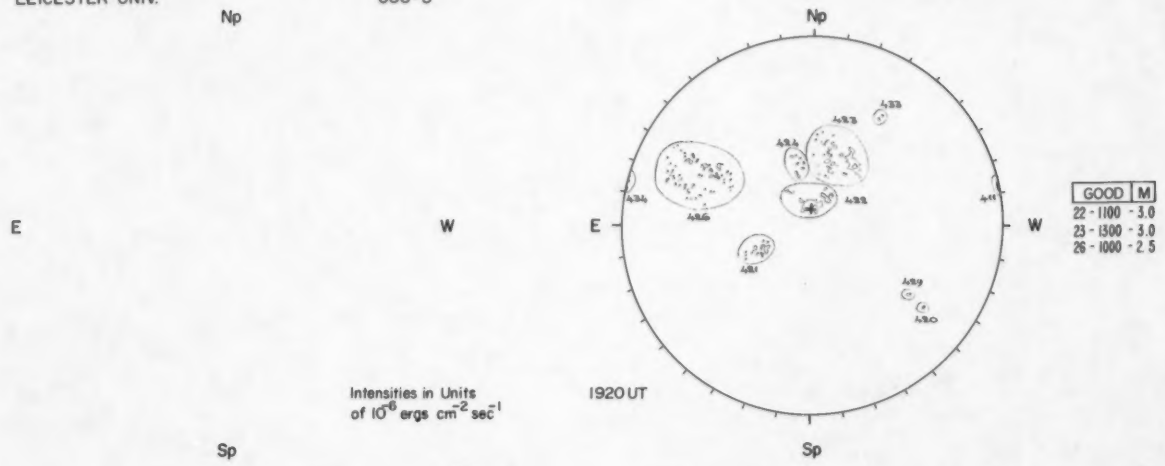
JANUARY 15, 1975 (P=-4.42, B_o=-4.53, L_o=101.82)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

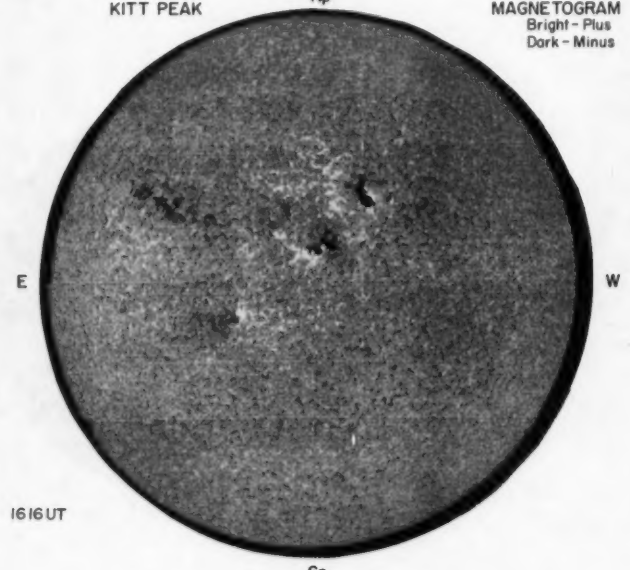
McMATH-HULBERT

CALCIUM REPORT



KITT PEAK

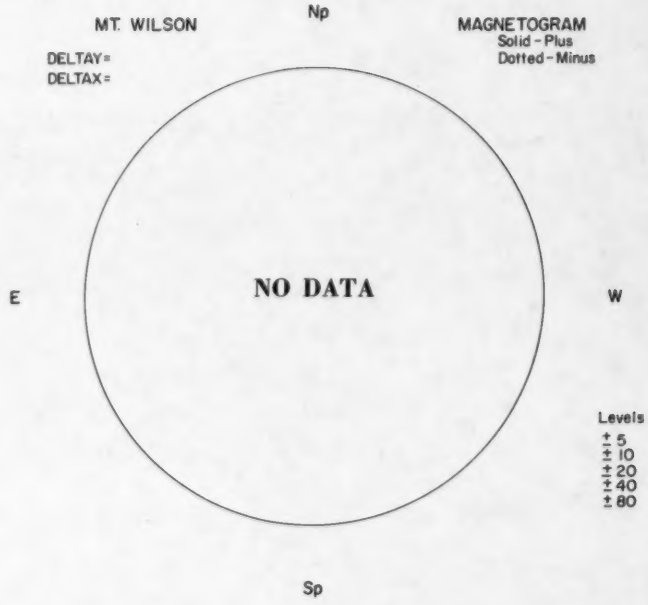
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

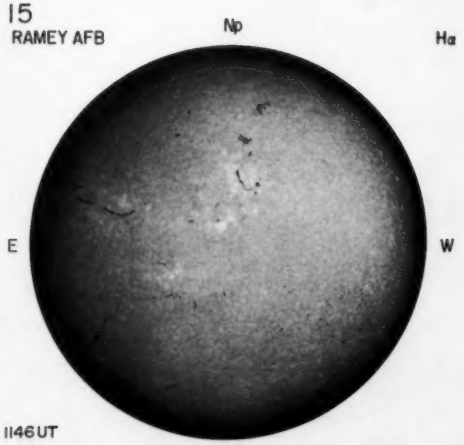
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



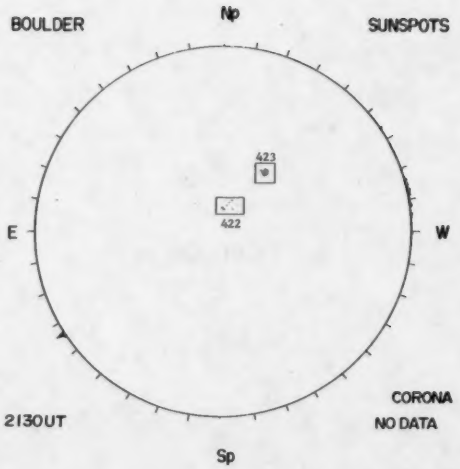
15

RAMEY AFB



1146 UT

BOULDER

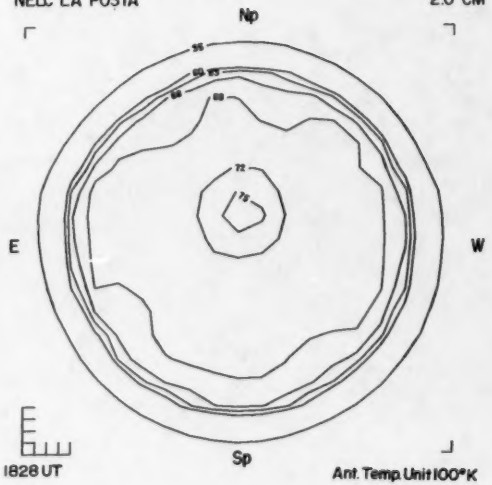


2130 UT

CORONA

NO DATA

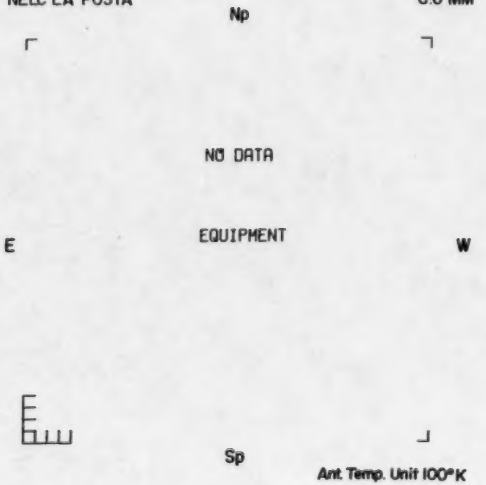
NELC LA POSTA



1828 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



Ant. Temp. Unit 100°K

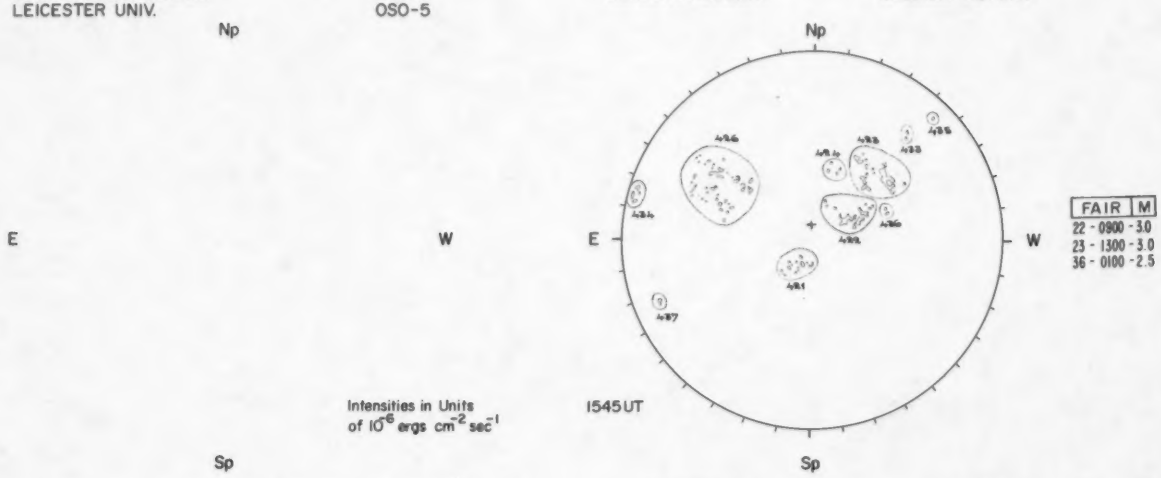
JANUARY 16, 1975 (P=-4.89, B_o=-4.63, L_o=88.65)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1545UT

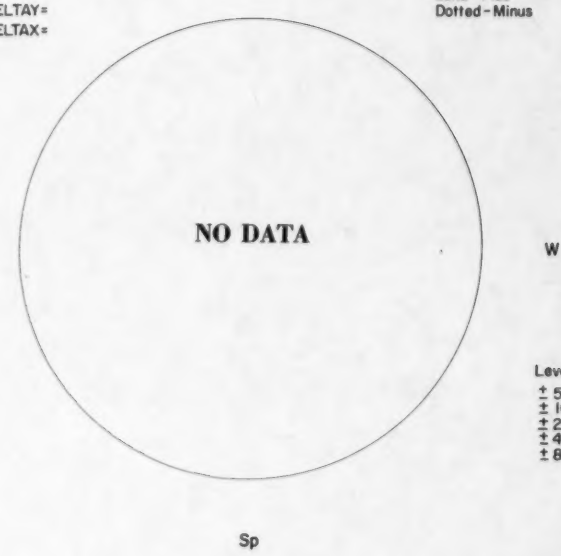
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

16

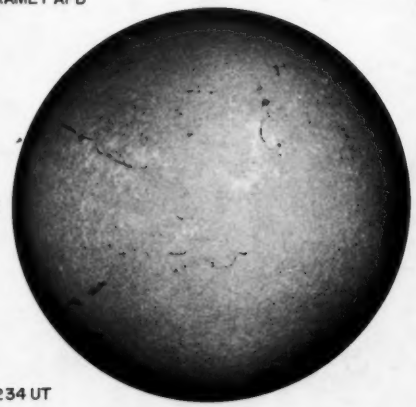
RAMEY AFB

Np

Hα

E

W



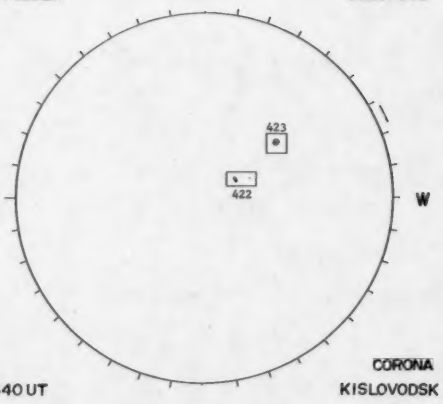
1234 UT

Sp

BOULDER

Np

SUNSPOTS



1640 UT

Sp

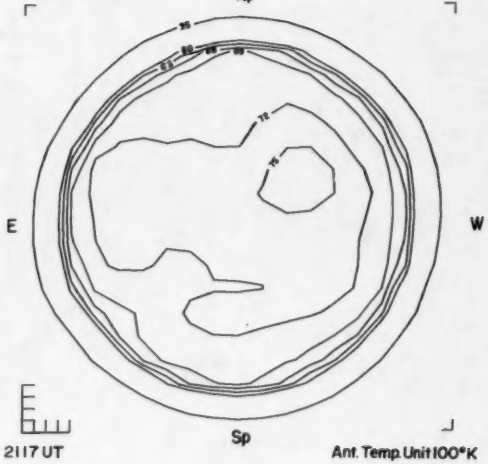
CORONA

KISLOVODSK

NELC LA POSTA

2.0 CM

Np



2117 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

NO DATA

EQUIPMENT

E

W

Sp

Ant. Temp. Unit 100°K

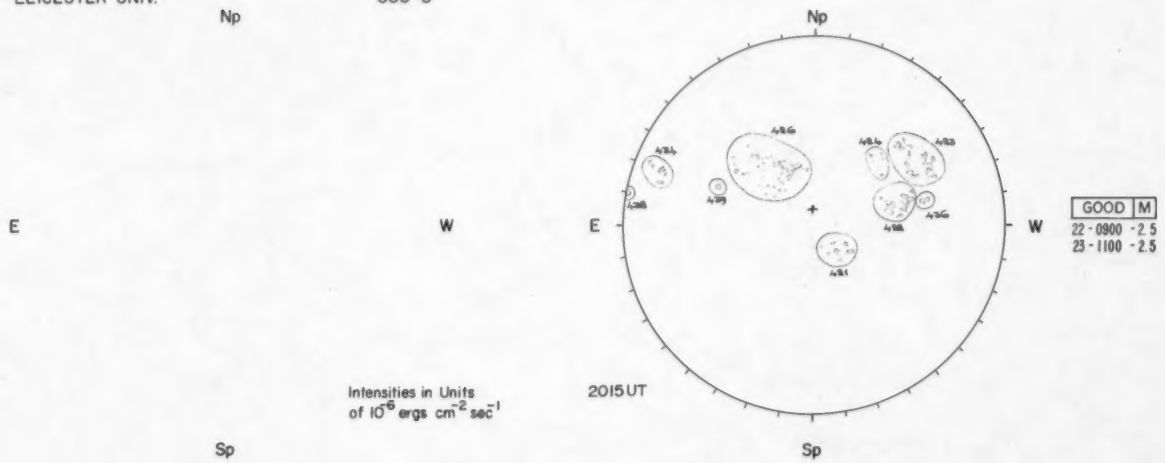
JANUARY 17, 1975 (P=-5.35, B_o=-4.73, L_o=75.48)

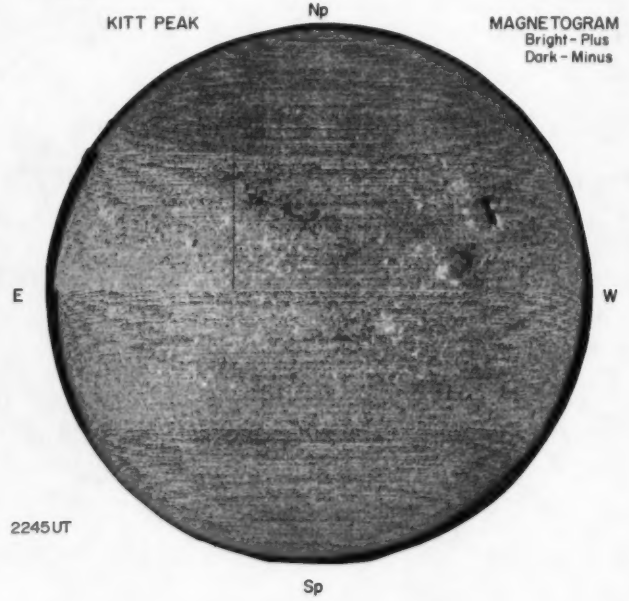
UNIV. COLLEGE LONDON
LEICESTER UNIV.

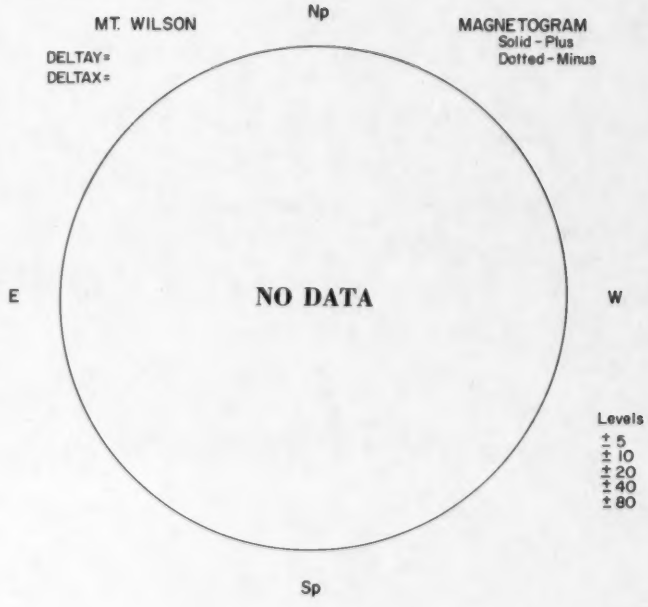
X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

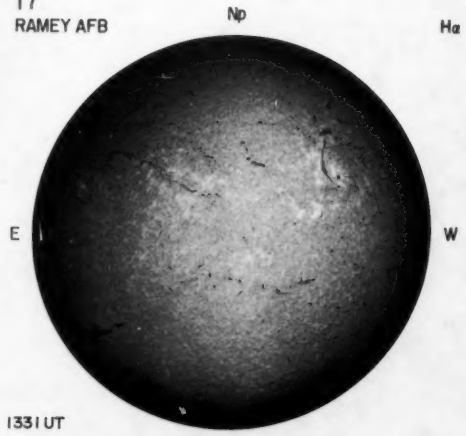






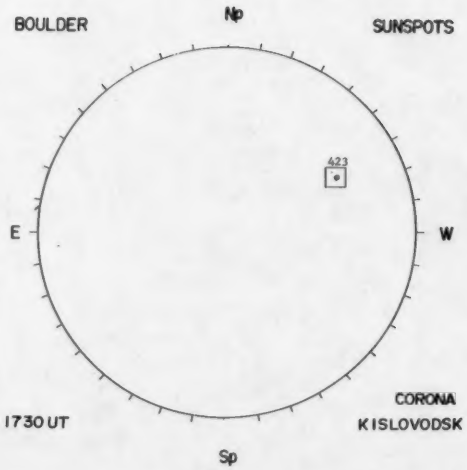
17

RAMEY AFB



1331 UT

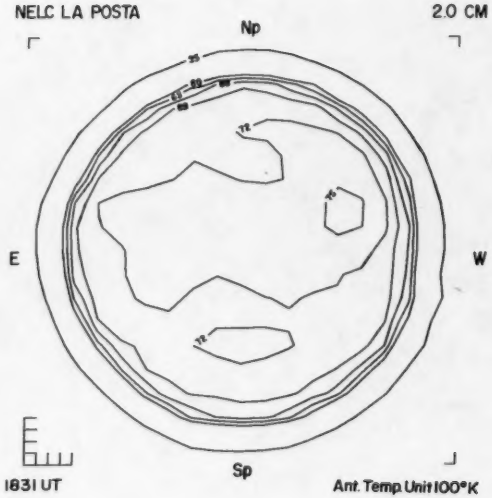
BOULDER



1730 UT

CORONA
KISLOVODSK

NELC LA POSTA



1831 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

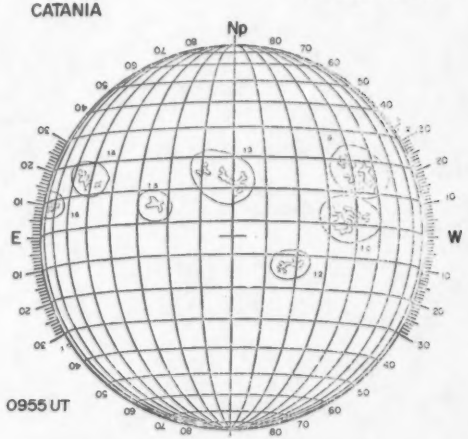
JANUARY 18, 1975 (P=-5.82, B_o=-4.83, L_o=62.32)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

CATANIA

CALCIUM REPORT

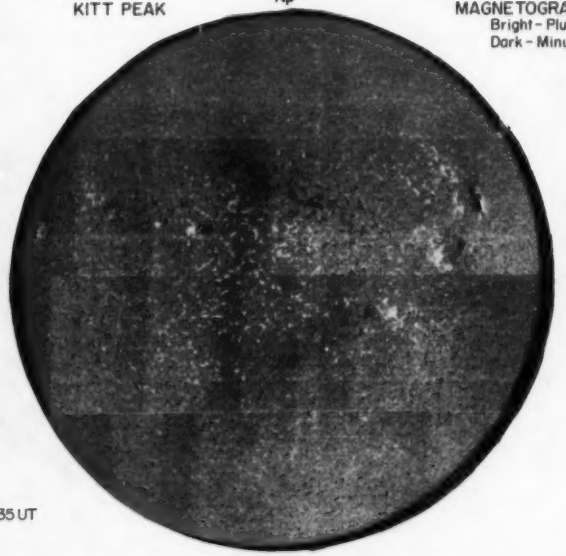


GOOD	SS
09 - 2111	---
10 - 1693	---

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

0955 UT

KITT PEAK

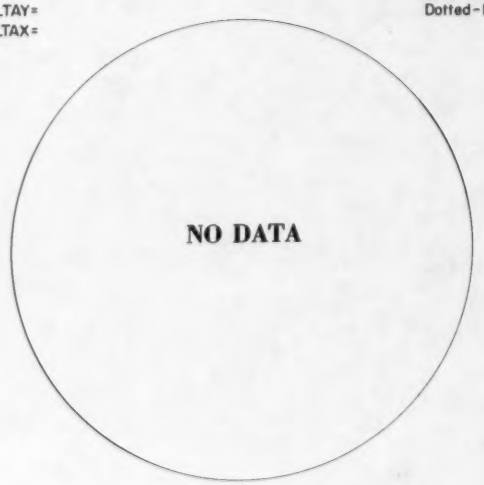


1635 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

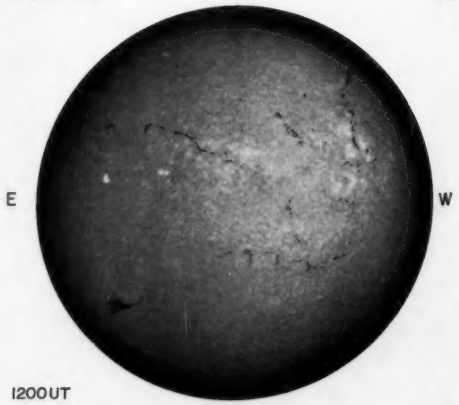
DELTAY=
DELTAX=



MAGNETOGRAM
Solid - Plus
Dotted - Minus

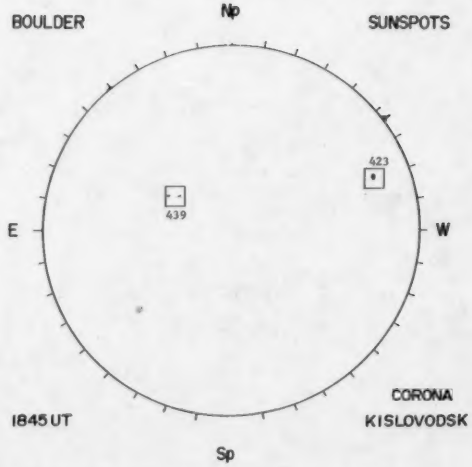
Levels
± 5
± 10
± 20
± 40
± 80

18
RAMEY AFB



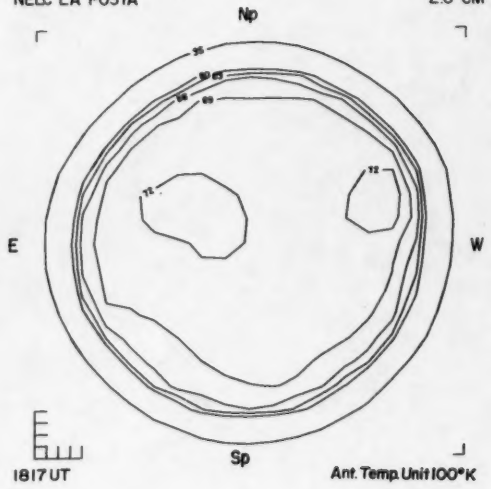
1200UT

BOULDER



CORONA
KISLOVODSK
1845UT

NELC LA POSTA



1817UT
Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

59
Jan 75

JANUARY 19, 1975 (P=-6.28, B_o=-4.92, L_o=49.15)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

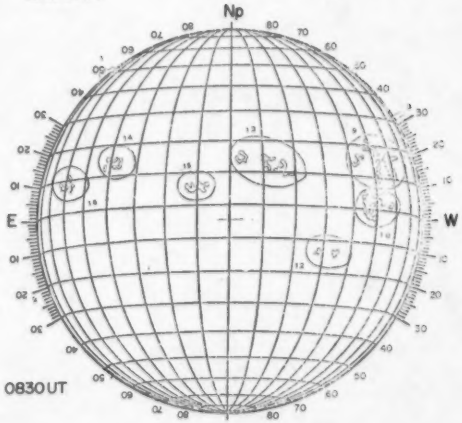
E W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

CATANIA

CALCIUM REPORT



FAIR	EC
09 - 2605	---
10 - 1306	---
13 - 0908	---
15 - 0439	---

0830 UT

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

E W

NO DATA

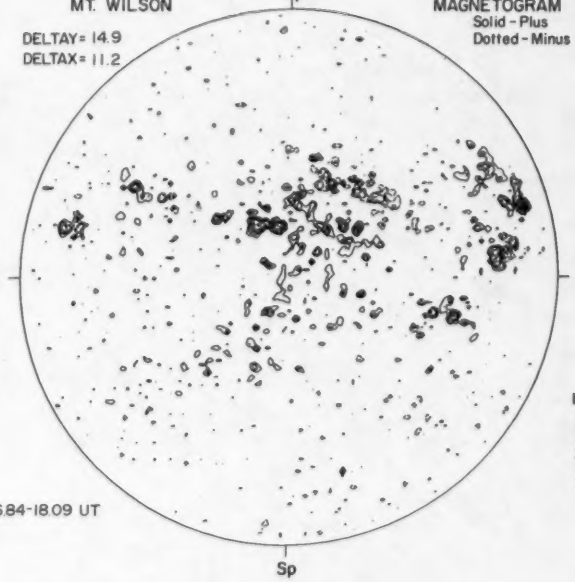
Sp

MT. WILSON

DELTAY= 14.9
DELTAX= 11.2

Np

MAGNETOGRAM
Solid - Plus
Dotted - Minus

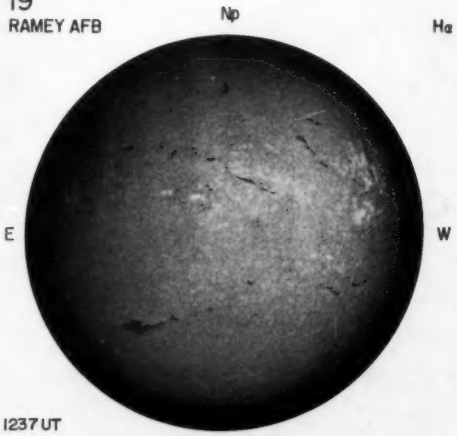


Levels
± 5
± 10
± 20
± 40
± 80

1684-1809 UT

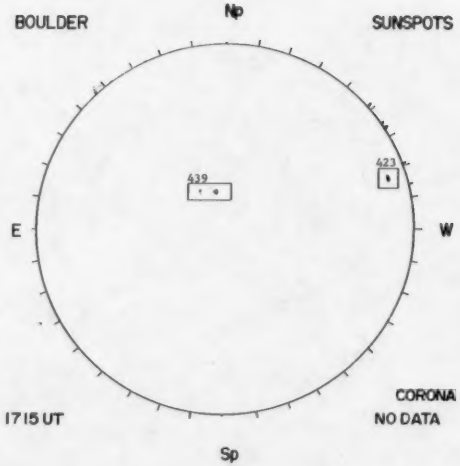
19

RAMEY AFB



1237 UT

BOULDER



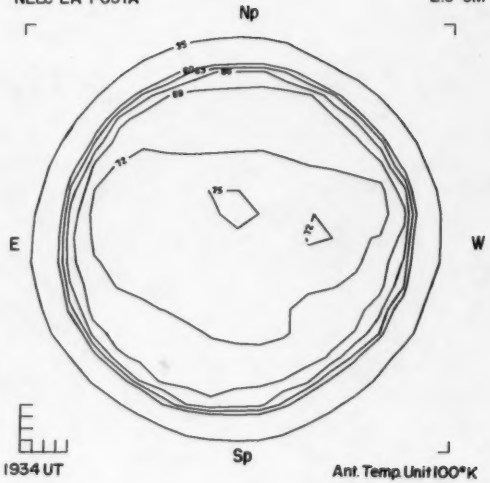
1715 UT

CORONA

NO DATA

NELC LA POSTA

2.0 CM



1934 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

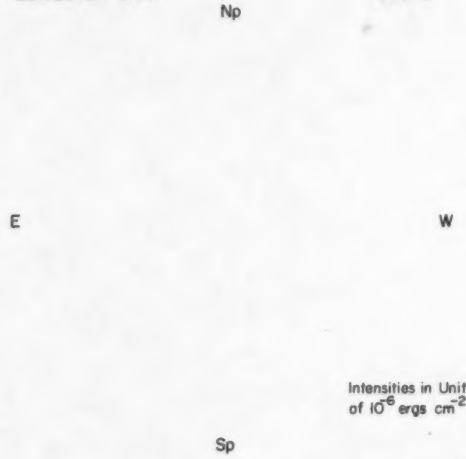
8.6 MM

Ant. Temp. Unit 100°K

JANUARY 20, 1975 (P=-6.74, B_o=-5.02, L_o=35.98)

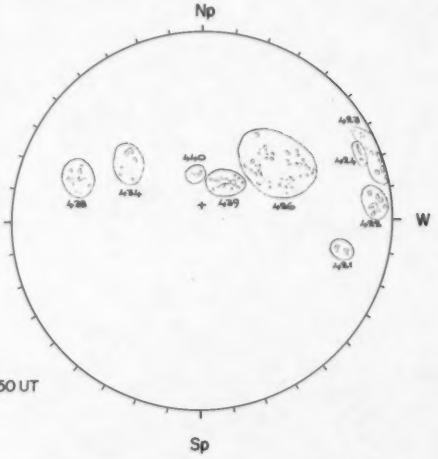
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

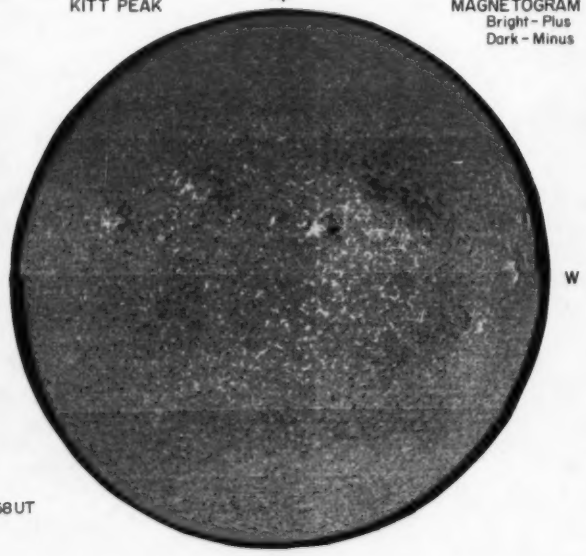


1450 UT

CALCIUM REPORT

FAIR	M
39 - 0800 - 3.0	
40 - 0200 - 2.5	

KITT PEAK

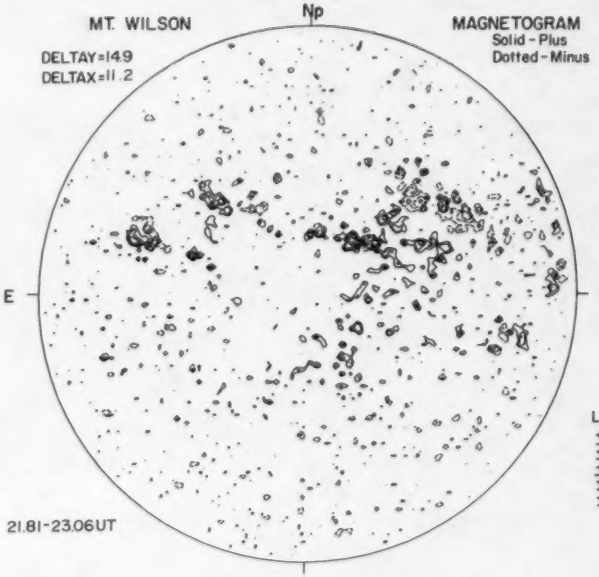


1658 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=14.9
DELTAX=11.2

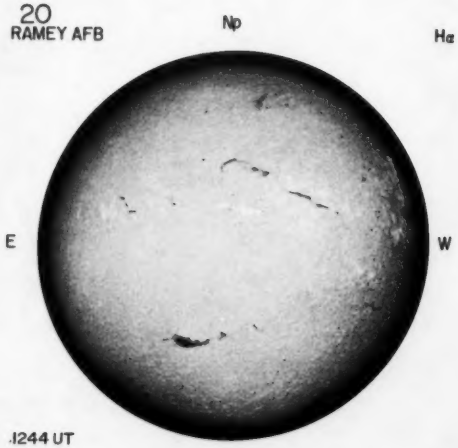


21.81-23.06 UT

MAGNETOGRAM
Solid - Plus
Dotted - Minus

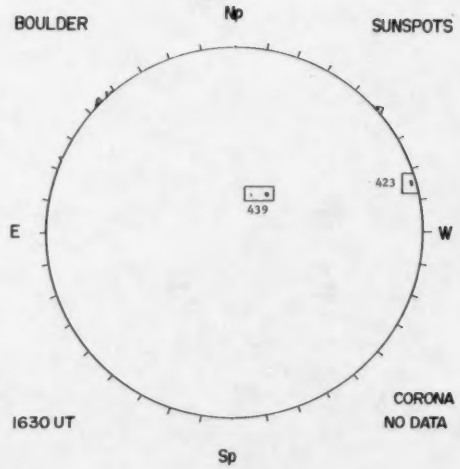
Levels
±5
±10
±20
±40
±80

20
RAMEY AFB



1244 UT

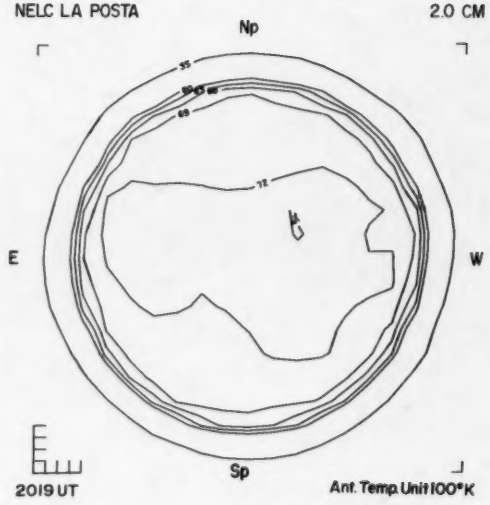
BOULDER



1630 UT

CORONA
NO DATA

NELC LA POSTA



2019 UT

NELC LA POSTA

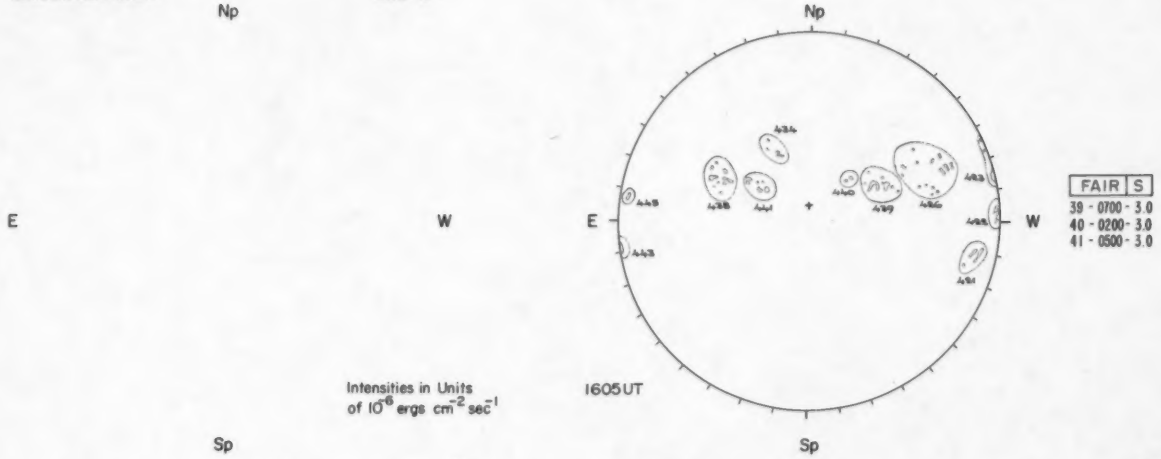
JANUARY 21, 1975 (P=-7.20, B_o=-5.11, L_o=22.82)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

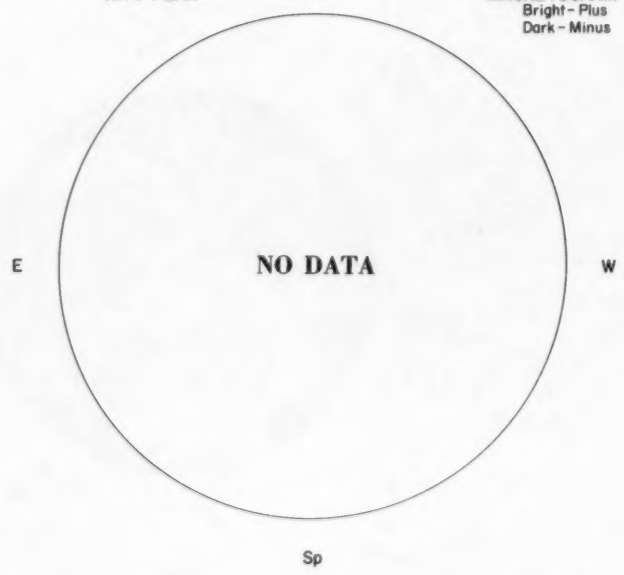
CALCIUM REPORT



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

KITT PEAK

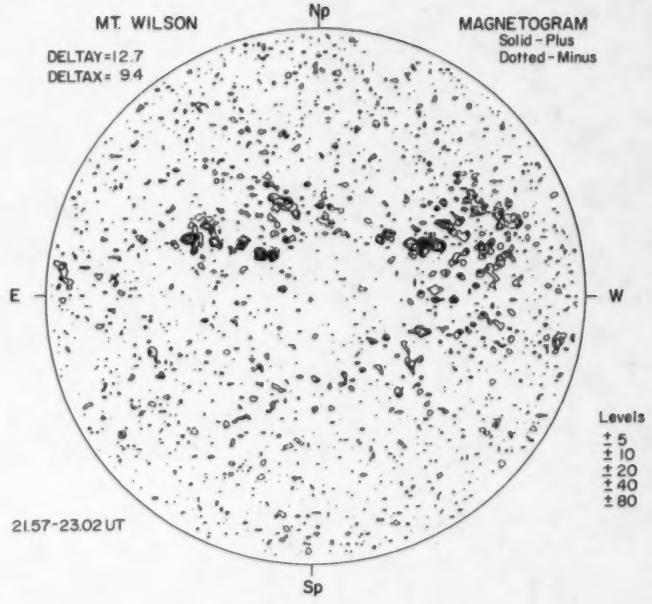
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY=12.7
DELTAX= 9.4

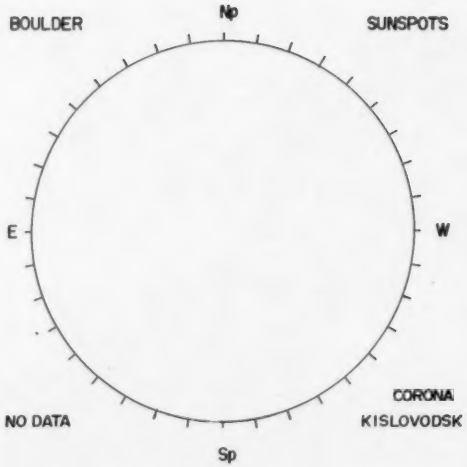
MAGNETOGRAM
Solid - Plus
Dotted - Minus



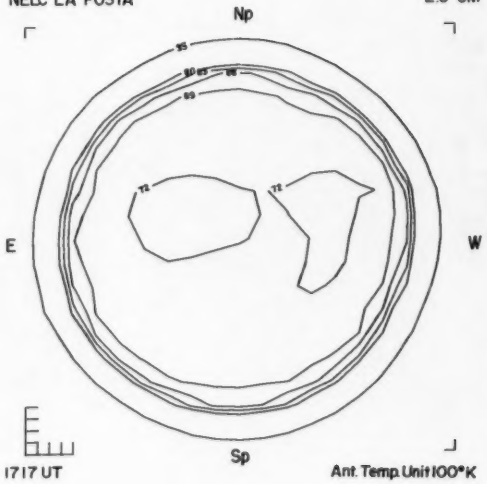
21
RAMEY AFB

1245 UT

BOULDER



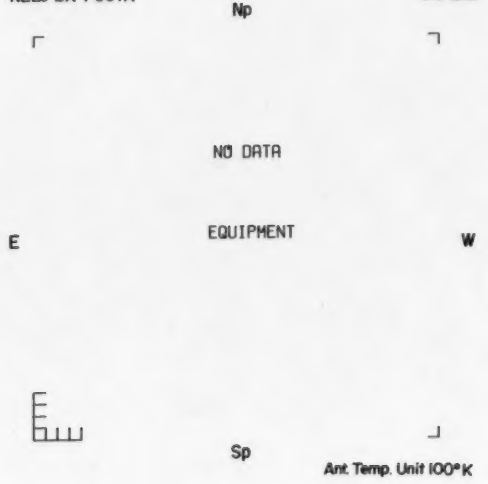
NELC LA POSTA



1717 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



Ant. Temp. Unit 100°K

65
Jan 75

JANUARY 22, 1975 (P=-7.65, B_o=-5.20, L_o=9.65)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

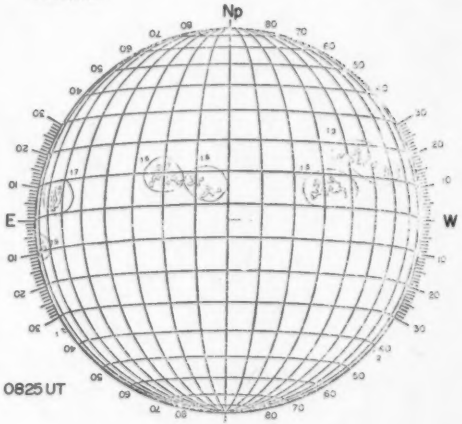
E W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

CATANIA

CALCIUM REPORT

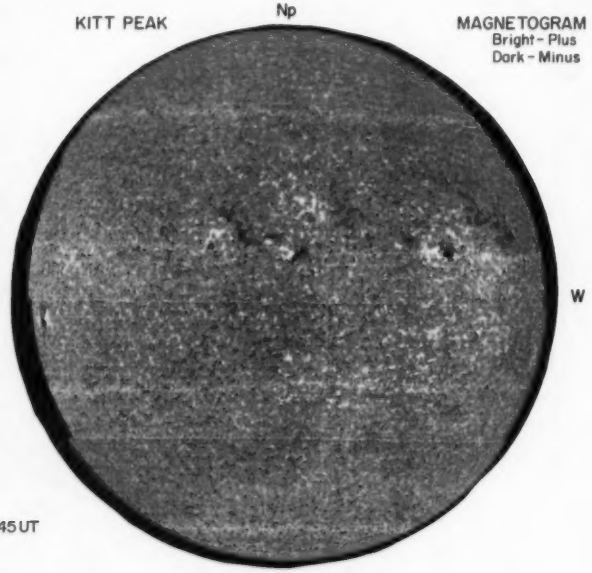


FAIR	EC
13 - 1221	---
15 - 1281	---
18 - 0638	---
19 - 1375	---

0825 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

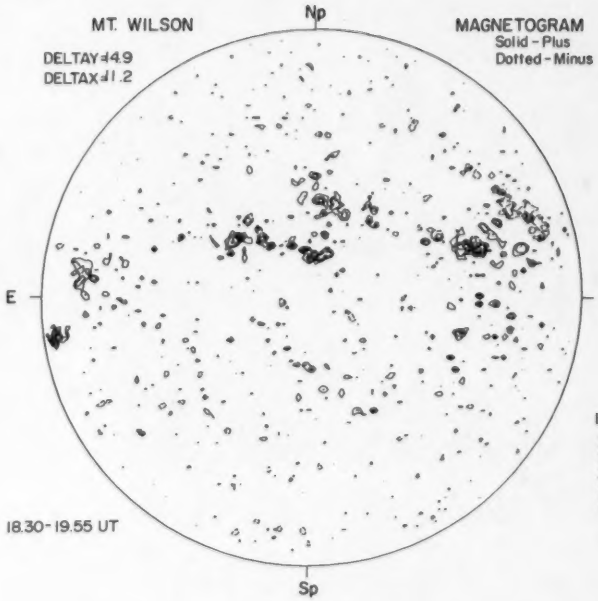


1745 UT

MT. WILSON

DELTAY=4.9
DELTAX=1.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

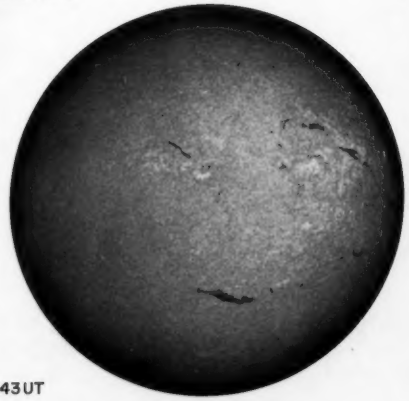
18.30 - 19.55 UT

22

RAMEY AFB

Np

Hα



E

W

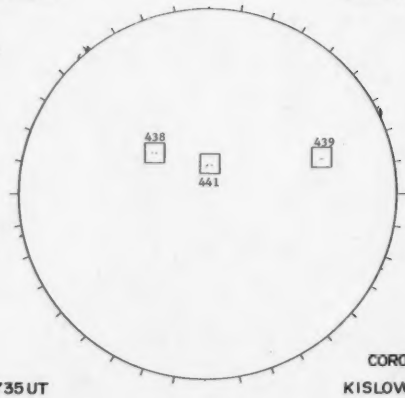
1243 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

CORONA

KISLOVODSK

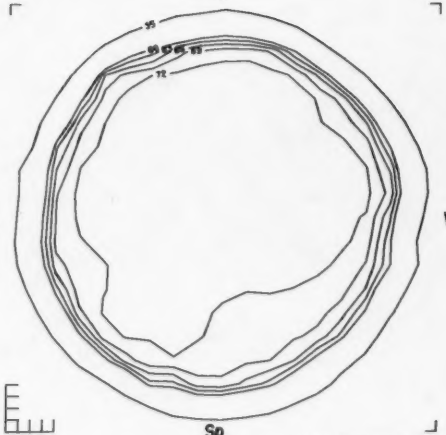
1735 UT

Sp

NELC LA POSTA

2.0 CM

Np



E

W

1951 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

NO DATA

EQUIPMENT

E

W

Sp

Ant. Temp. Unit 100°K

67

Jan 75

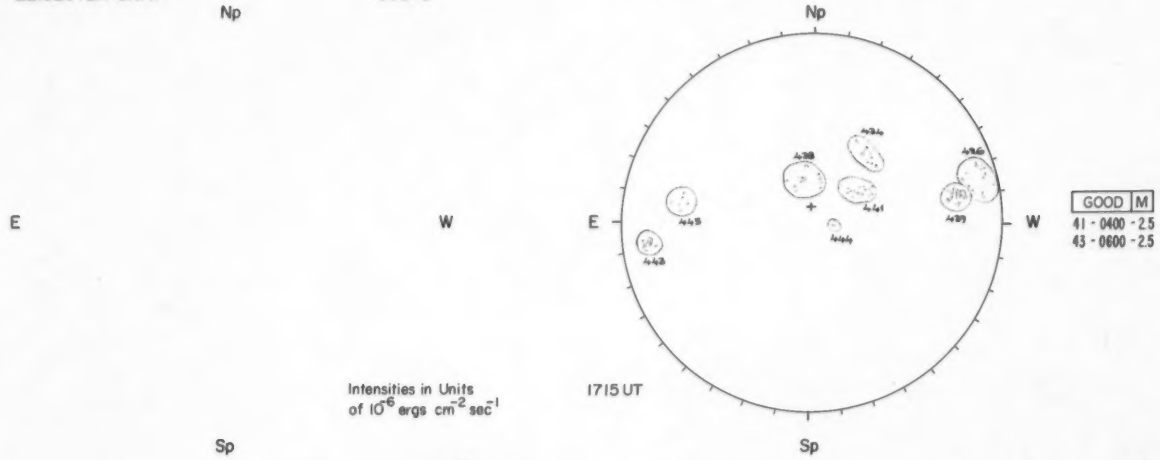
JANUARY 23, 1975 (P=-8.10, B_o=-5.29, L_o=356.48)

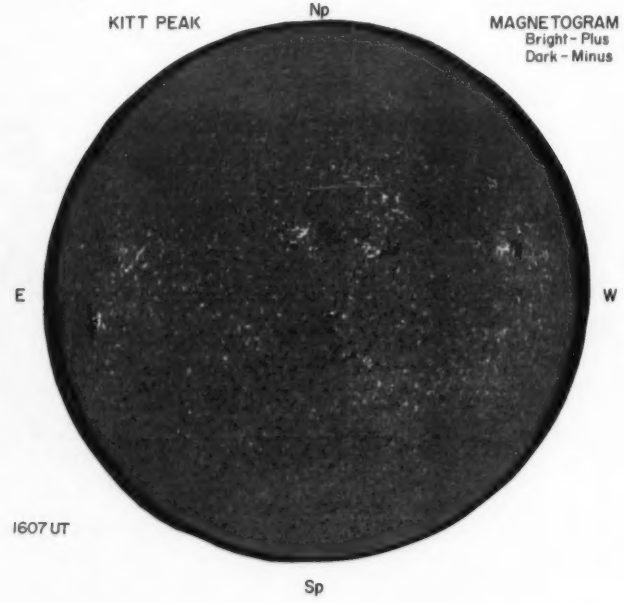
UNIV. COLLEGE LONDON
LEICESTER UNIV.

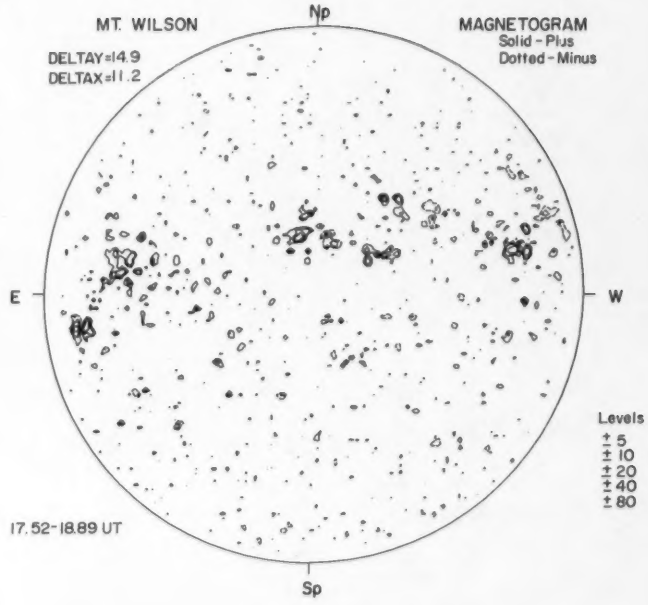
X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

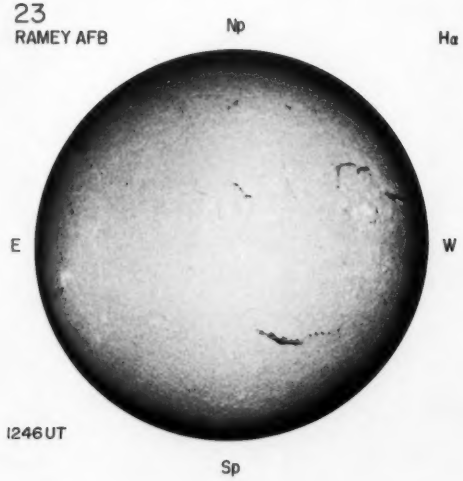






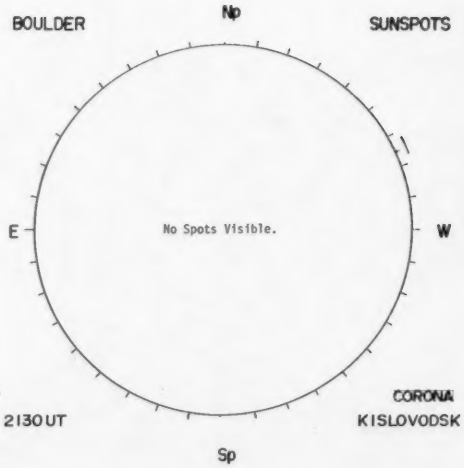
23

RAMEY AFB



1246 UT

BOULDER

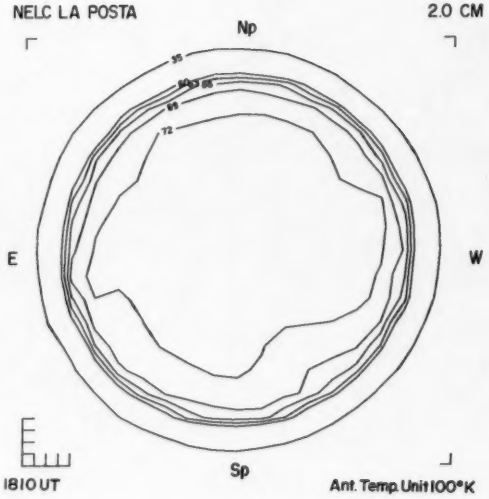


2130 UT

CORONA

KISLOVODSK

NELC LA POSTA



1810 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

JANUARY 24, 1975 (P=-8.54, B_o=-5.38, L_o=343.31)

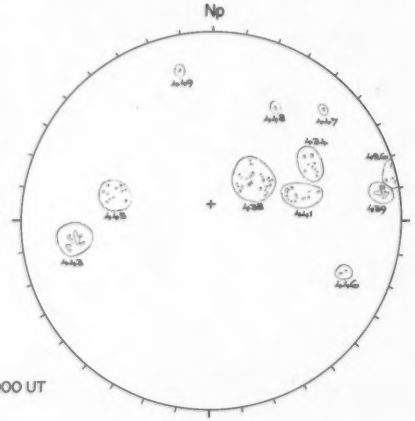
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np
E
W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

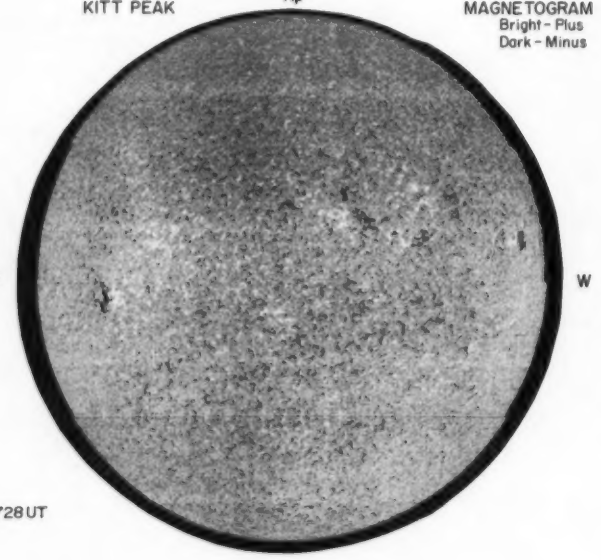


1900 UT

CALCIUM REPORT

GOOD | M
43 - 0700 - 2.5

KITT PEAK

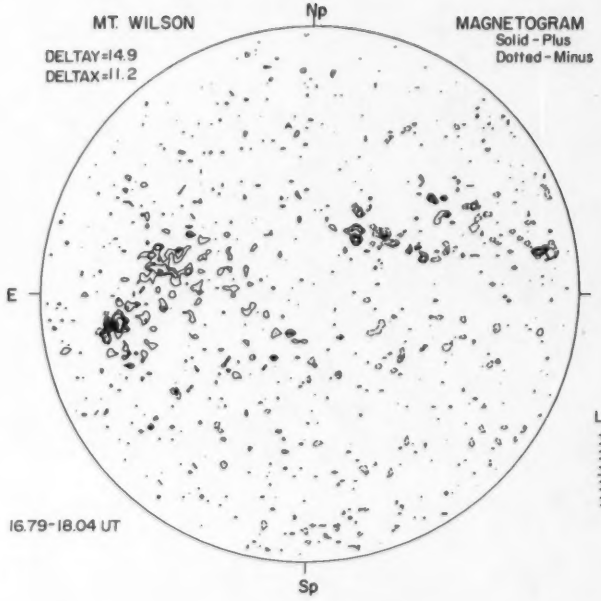


MAGNETOGRAM
Bright - Plus
Dark - Minus

1728 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2



MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

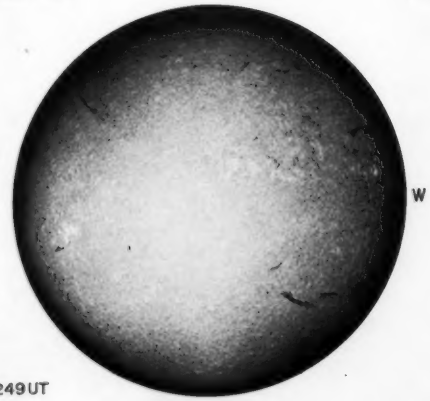
16.79-18.04 UT

24

RAMEY AFB

Np

Hα



E

W

1249 UT

Sp

BOULDER

Np

SUNSPOTS

E

No Spots Visible.

W

CORONA

KISLOVODSK

1658 UT

Sp

NELC LA POSTA

Np

2.0 CM

95

90 85 80

80

72

E

W

Sp

2104 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

71

Jan 75

JANUARY 25, 1975 (P=-8.98, B_o=-5.46, L_o=330.15)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

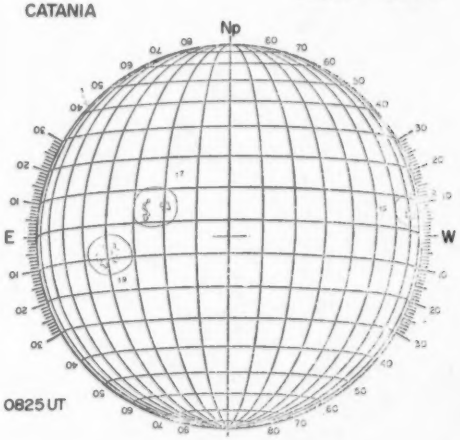
X-RAY
OSO-5

Np
E W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

CALCIUM REPORT

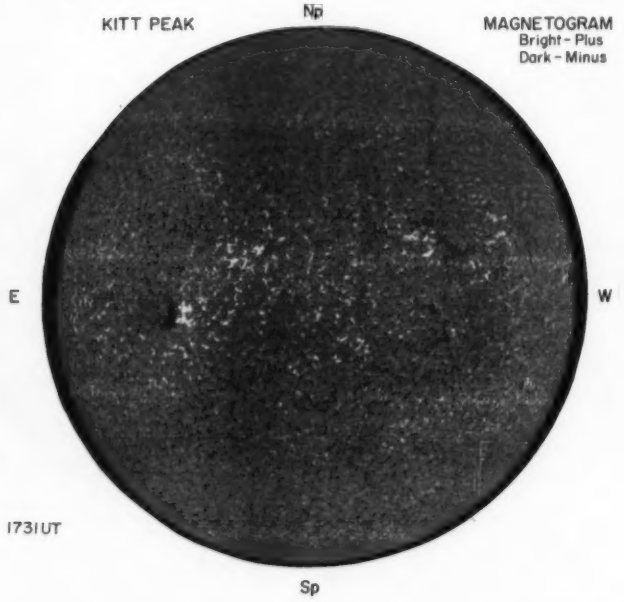
CATANIA



FAIR EC
19 - 1105 ---

0825 UT

KITT PEAK

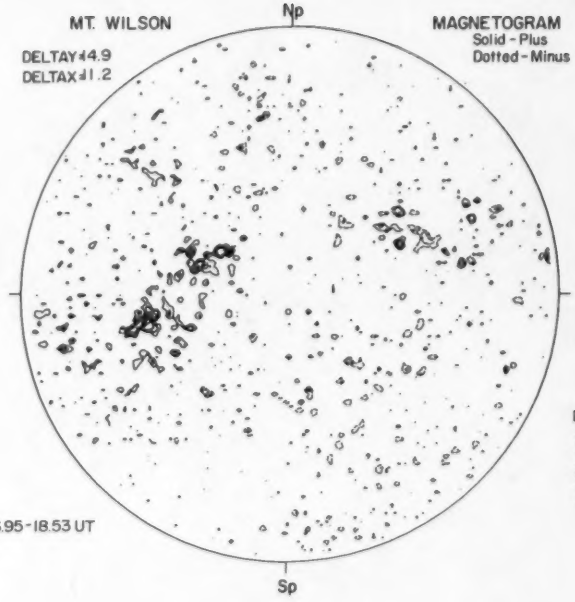


MAGNETOGRAM
Bright - Plus
Dark - Minus

1731 UT

MT. WILSON

DELTAY ±4.9
DELTAX ±1.2



MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

16.95 - 18.53 UT

25

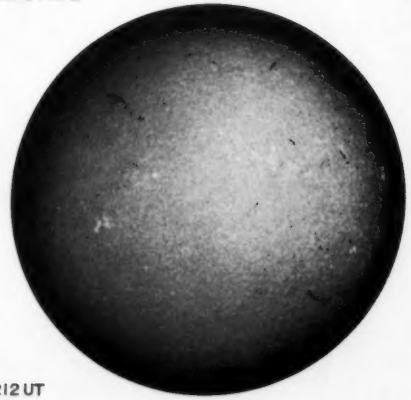
RAMEY AFB

Np

Hα

E

W



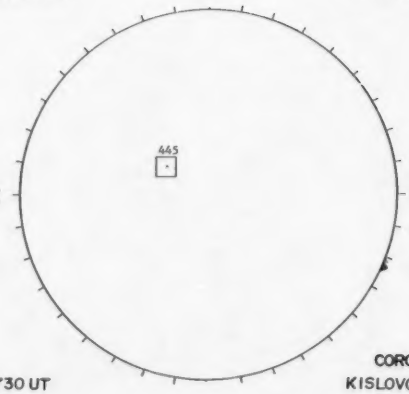
1212 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

CORONA

KISLOVODSK

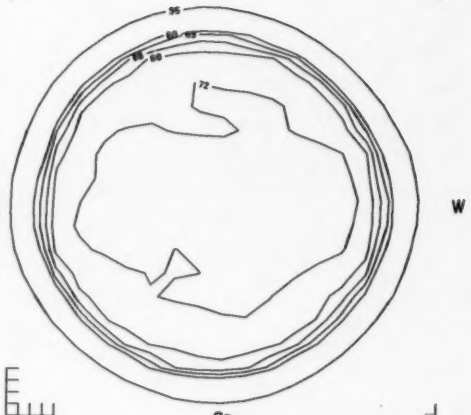
1730 UT

Sp

NELC LA POSTA

Np

2.0 CM



E

W

1845 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

73

Jan 75

JANUARY 26, 1975 (P=-9.42, B_o=-5.55, L_o=316.98)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

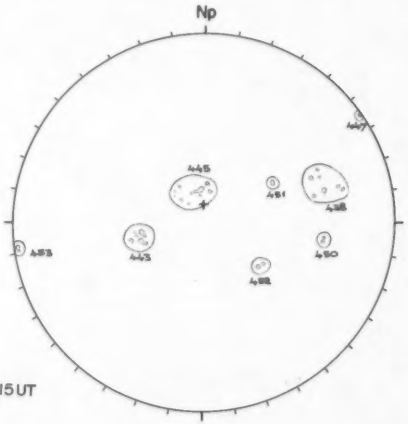
X-RAY
OSO-5

Np
E W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

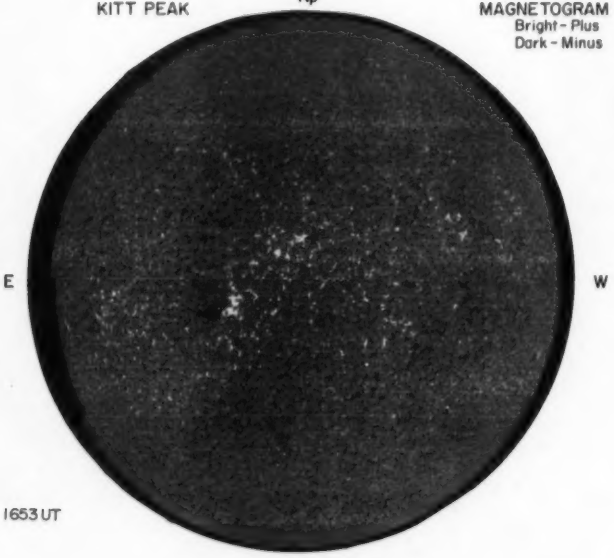
CALCIUM REPORT



V. POOR D
43 - 0600 - 2.5
45 - 0500 - 2.5

1715 UT

KITT PEAK

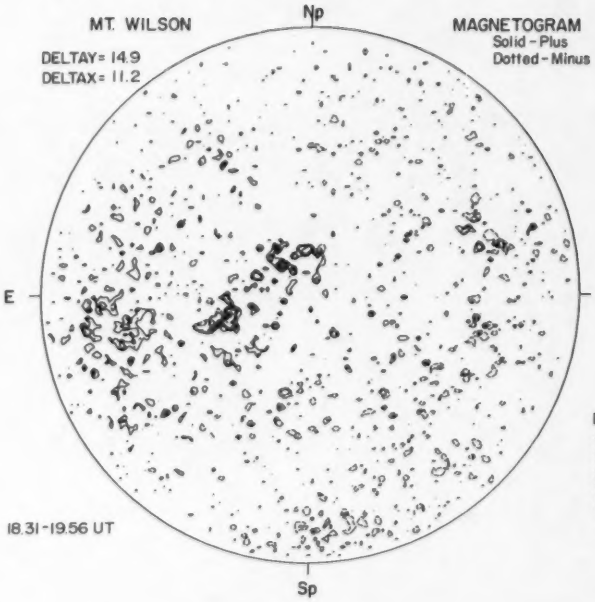


MAGNETOGRAM
Bright - Plus
Dark - Minus

1653 UT

MT. WILSON

DELTAY= 14.9
DELTAX= 11.2



MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
±5
±10
±20
±40
±80

18.31-19.56 UT

26

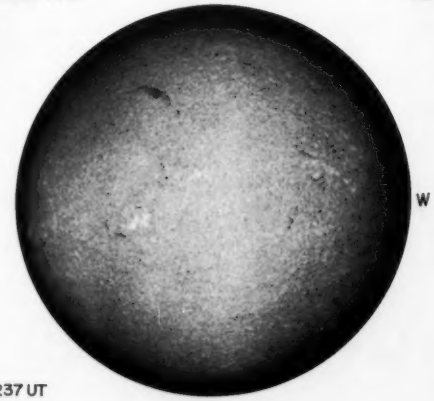
RAMEY AFB

Np

Hα

E

W



1237 UT

Sp

BOULDER

Np

SUNSPOTS

E

No Spots Visible.

W

CORONA

KISLOVODSK

1717 UT

Sp

NELC LA POSTA

Np

2.0 CM

95

88

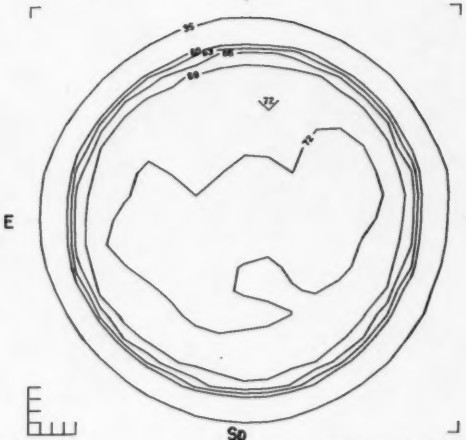
88

77

72

E

W



Sp

1837 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

75

Jan 75

JANUARY 27, 1975 (P=-9.86, B_o=-5.63 L_o=303.81)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

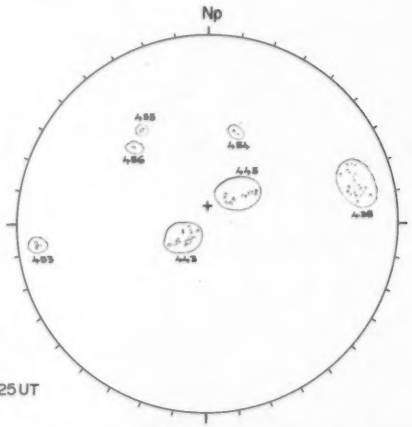
CALCIUM REPORT

Np

E W

Sp

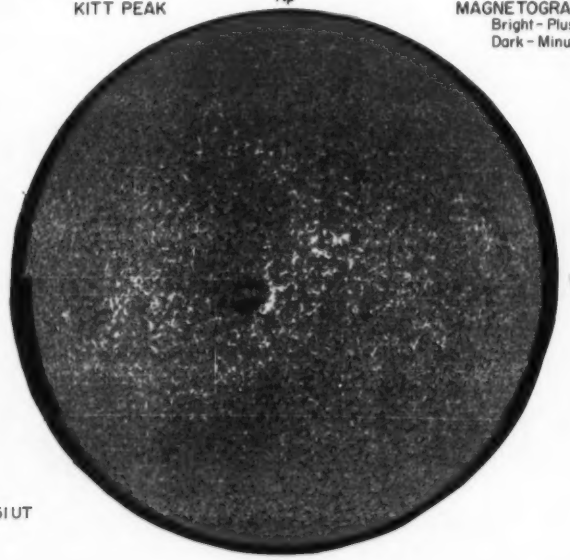
Intensities in Units
of 10^6 ergs cm^{-2} sec^{-1}



1625 UT

GOOD | M

KITT PEAK

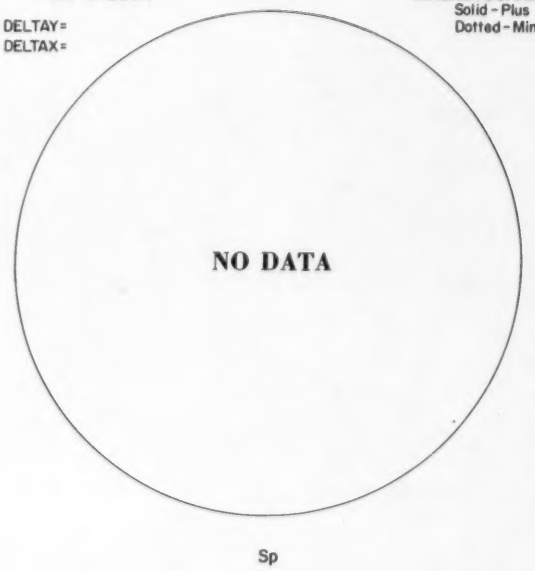


1751 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=



MAGNETOGRAM
Solid - Plus
Dotted - Minus

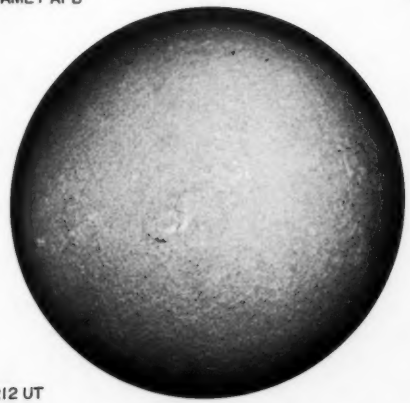
Levels
± 5
± 10
± 20
± 40
± 80

27

RAMEY AFB

Np

Hα



E

W

1212 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

CORONA

NORIKURA

NO DATA

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

77

Jan 75

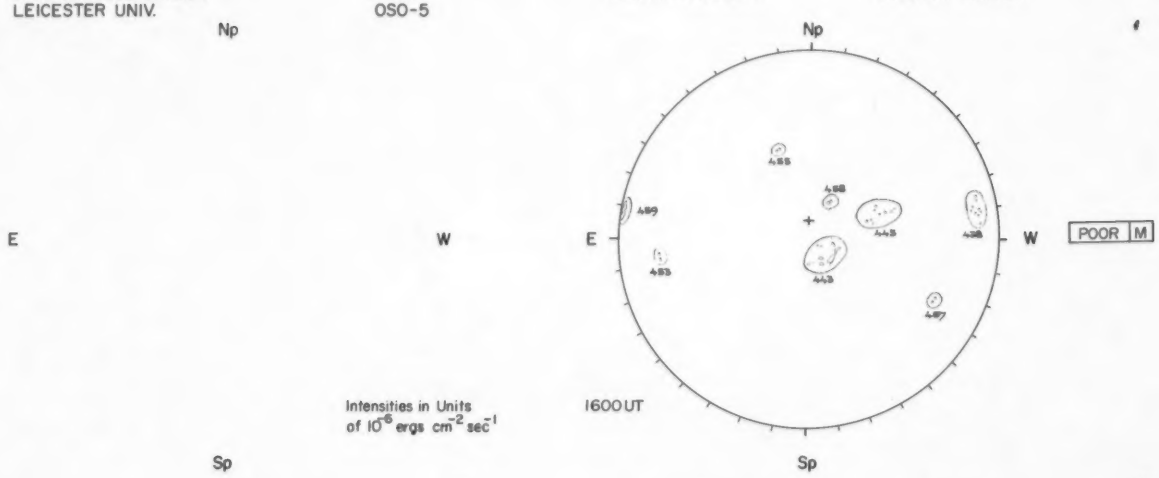
JANUARY 28, 1975 (P=-10.29, B_o=-5.71, L_o=290.65)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



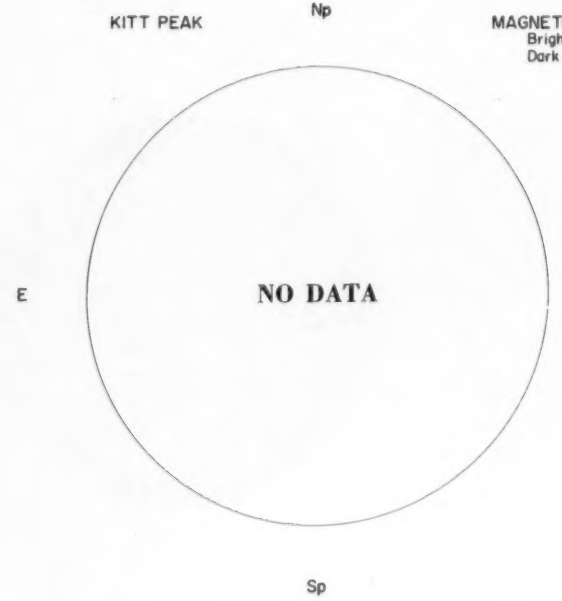
POOR | M

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1600 UT

KITT PEAK

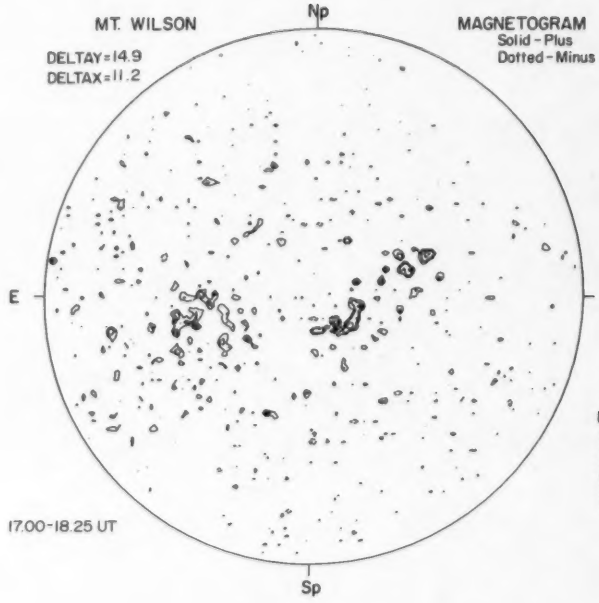
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY=14.9
DELTAX=11.2

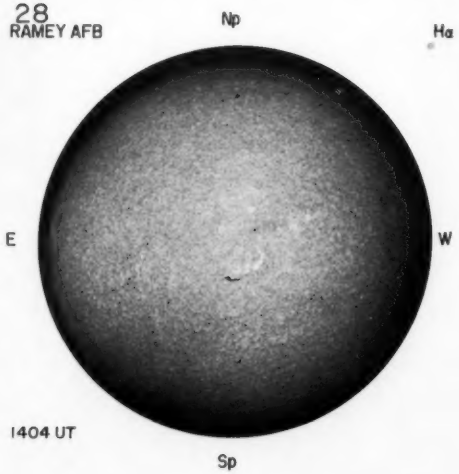
MAGNETOGRAM
Solid - Plus
Dotted - Minus



17.00-18.25 UT

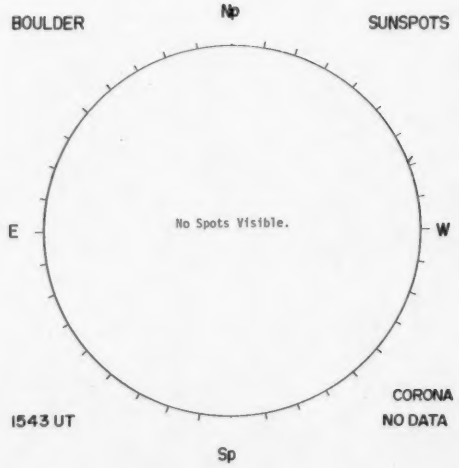
28

RAMEY AFB



1404 UT

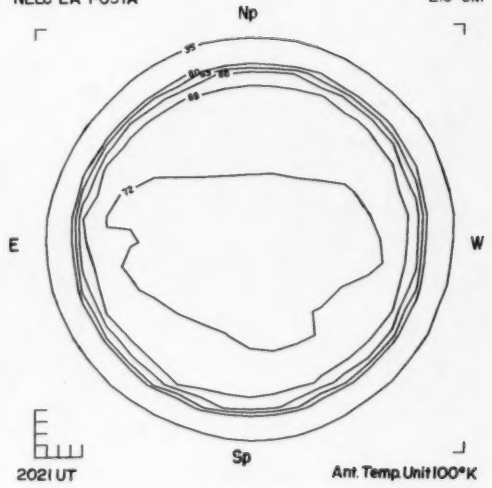
BOULDER



1543 UT

CORONA
NO DATA

NELC LA POSTA



2021 UT

NELC LA POSTA

79
Jan 75

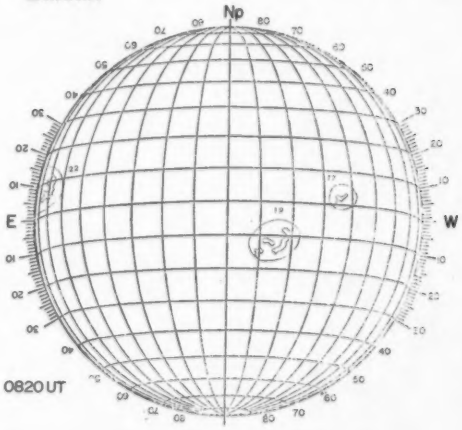
JANUARY 29, 1975 (P=-10.71, B_o=-5.79, L_o=277.48)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

CATANIA

CALCIUM REPORT



GOOD EC
19 - 0829 ---

0820 UT

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

KITT PEAK

Np

NO DATA

E

W

Sp

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

Np

NO DATA

E

W

Sp

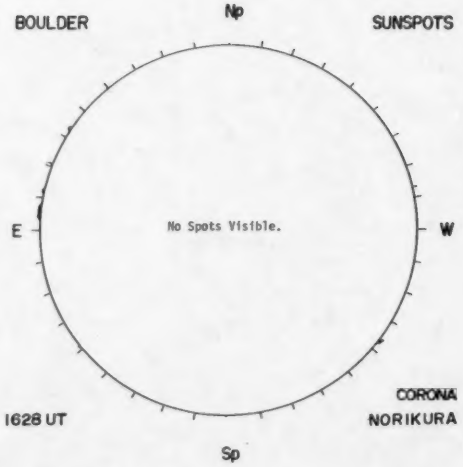
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
±5
±10
±20
±40
±80

29
RAMEY AFB

1309 UT

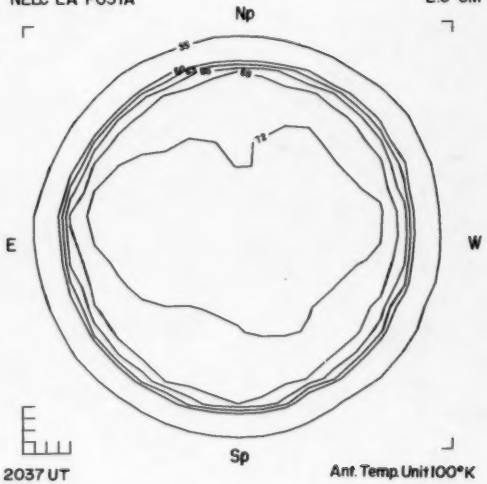
BOULDER



1628 UT

CORONA
NORIKURA

NELC LA POSTA



2037 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

81
Jan 75

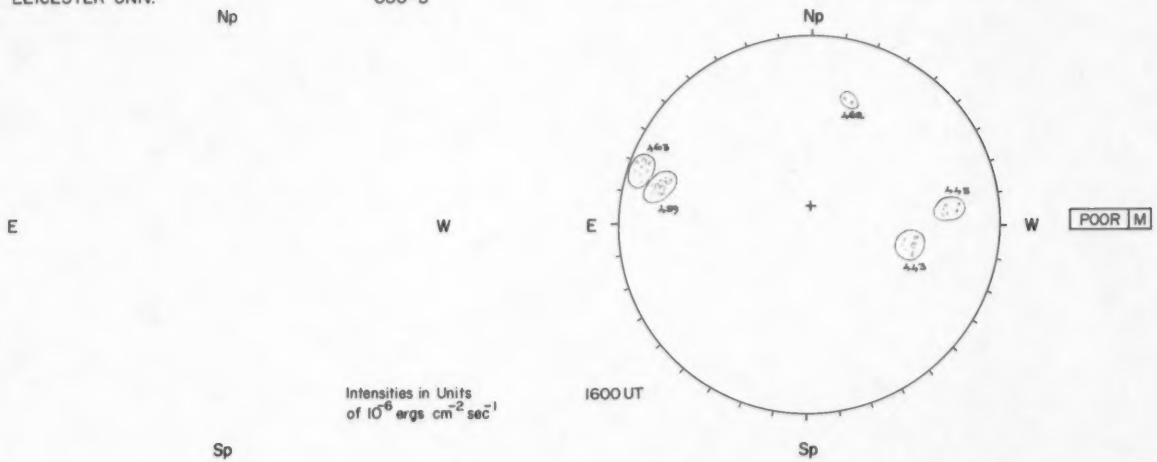
JANUARY 30, 1975 (P=-11.14, B_o=-5.86, L_o=264.31)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1600 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

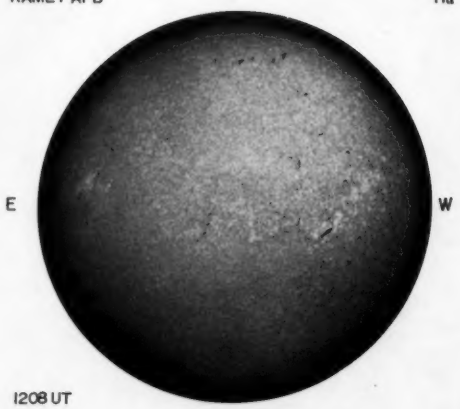
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

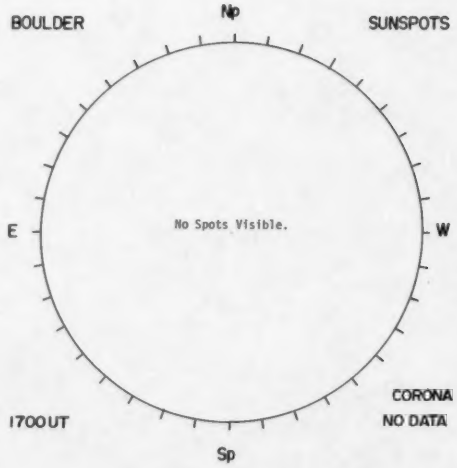
30

RAMEY AFB



1208 UT

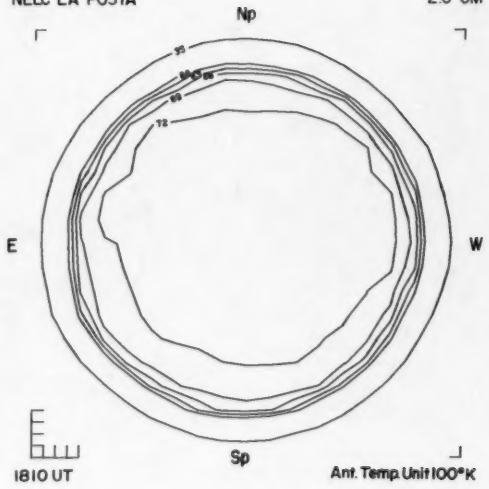
BOULDER



1700 UT

CORONA
NO DATA

NELC LA POSTA



1810 UT

NELC LA POSTA

83
Jan 75

JANUARY 31, 1975 (P=-11.55, B_o=-5.94, L_o=251.15)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

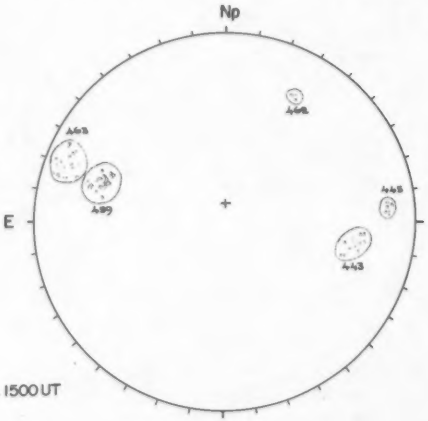
CALCIUM REPORT

Np

E W

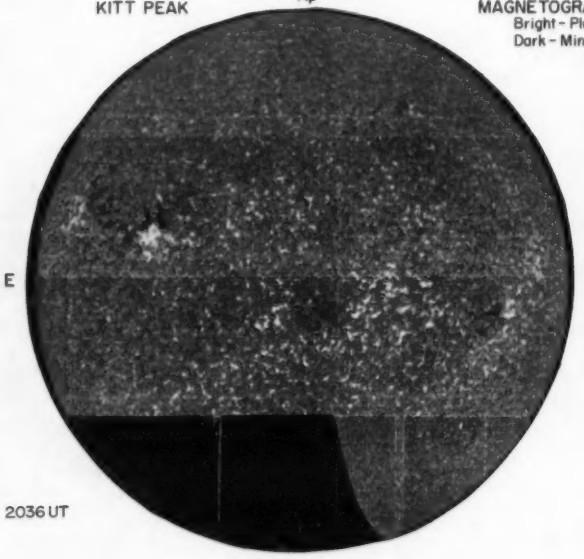
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}



FAIR | M

KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

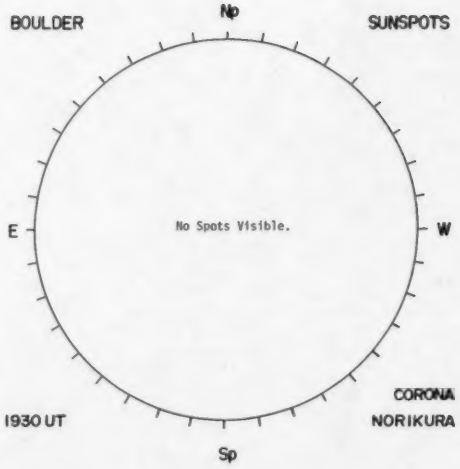
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

31
RAMEY AFB

BOULDER



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Jan 75

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MCMATH REGION 13407 CMP DATE 2.4

CALCIUM PLAGE DATA							SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	1	13407	S28 E08	267	200	1.5								
75	1	2	13407	S29 W03	266	300	1.5								

MCMATH REGION 13406 CMP DATE 2.5

CALCIUM PLAGE DATA							SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	1	13406	N01 E10	265	300	1.0								
75	1	2	13406	N01 W01	264	300	1.0								
75	1	4	13406	N03 W27	263	200	1.5								
75	1	5	13406	N03 W37	261	200	1.0								

MCMATH REGION 13417 CMP DATE 2.8

CALCIUM PLAGE DATA							SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	7	13417	S21 W66	262	200	1.0								

MCMATH REGION 13410 CMP DATE 3.1

CALCIUM PLAGE DATA							SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	2	13410	S20 E66	257	200	2.0								

MCMATH REGION 13402 CMP DATE 3.4

CALCIUM PLAGE DATA							SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
74	12	30	13402	N27 E50	254	200	1.5								

MCMATH REGION 13400 CMP DATE 4.2

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
74	12	29						19531	S09 E73	243	BP	B	80	3	CSO
74	12	30	13400	S10 E60	244	1000	3.0	19531	S09 E60	242	(BP) 4	B	130	6	DSO
75	1	1	13400	S08 E33	242	1000	3.5	19531	S09 E33	242	(BP) 4	B	230	5	DSO
75	1	2	13400	S08 E21	242	1000	3.0	19531	S09 E19	242	(BP) 3	R	90	6	DSI
75	1	3						19531	S09 E08	242	(BP) 4	B	120	3	CRO
75	1	4	13400	S08 W06	242	800	2.5	19531	S08 W07	241	(BP 3	B	70	1	HAX
75	1	5	13400	S08 W19	243	1100	2.5	19531	S08 W26	246	(AP) 3	B	30	4	CSI
75	1	6	13400	S10 W30	241	1100	2.5	19531	S08 W39	248	(AP) 2	H	40	3	CAI
75	1								S08 W40			H	10	3	AXX
75	1	7	13400	S09 W45	241	1000	2.0								

MCMATH REGION 13414 CMP DATE 4.4

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	6	13414	N09 W30	241	200	2.5	19534	N10 W35	244	(BP) 2	H	50	7	CRO
75	1	7	13414	N09 W46	242	600	3.0	19534	N10 W48	243	(BP) 4	B	60	11	CSO
75	1	8							N11 W61			B	50	2	BXO
75	1	9						19534	N11 W78	245	AP				

MCMATH REGION 13418 CMP DATE 4.6

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	6	13418						N05 W30			H	10	1	AXX
75	1	7	13418	N06 W41	237	200	2.0								

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MCMATH REGION 13401 CMP DATE 5.5

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
74	12	30	13401	S13 E77	227	200	1.0
75	1	1	13401	S13 E49	226	200	1.0
75	1	2	13401	S13 E38	225	200	1.0
75	1	4	13401	S13 E11	225	200	1.0
75	1	5	13401	S13 W01	225	200	1.0
75	1	6	13401	S13 W14	225	300	1.0
75	1	7	13401	S13 W30	226	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13408 CMP DATE 5.7

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	1	13408	S23 E52	223	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13413 CMP DATE 6.6

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	5	13413	N04 E12	212	100	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13409 CMP DATE 7.8

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	1	13409	N06 E85	196	900	2.5
75	1	2	13409	N06 E71	192	700	2.5
75	1	3					
75	1	4	13409	N07 E43	193	600	2.5
75	1	5	13409	N06 E30	194	600	2.0
75	1	6	13409	N06 E16	195	500	3.0
75	1						
75	1	7	13409	N06 E01	195	500	2.5
75	1	8					
75	1	9					
75	1	10					
75	1	11	13409	N05 W53	197	900	3.0
75	1	12	13409	N05 W65	196	1000	3.0
75	1	13	13409	N05 W80	198	1500	3.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
19533	N03 E80	195	(AP)	3				
19533	N04 E66	195	(AP)	3	R	50	3	CSO
19533	N03 E54	196	(BP)	4	B	80	2	BXO
19533	N04 E39	195	(BP)	3	B	50	2	CSO
19533	N05 E24	196	(AP)	3	B	30	1	HSX
19533	N05 E12	197	(AP)	3	H	40	1	HAX
	N04 E24				H	30	1	HSX
19533	N06 W02	197	(AP)	3	B	20	1	HSX
	N05 W14				B	20	1	AXX
19533	N04 W30	197	(BP)	3				
19533	N06 W43	199	(AP)	4				
19533	N06 W56	199	(BP)	4	R	70	4	HAX
19533	N06 W72	199	(AP)	3	B	80	1	HSX
19533	N06 W86	204	(AP)	3				

MCMATH REGION 13412 CMP DATE 8.4

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	4	13412	S31 E49	187	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13411 CMP DATE 9.1 RETURN OF REGION 13373 ROTATION 2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	2	13411	N13 E88	175	800	1.5
75	1	4	13411	N14 E59	177	1600	2.5
75	1	5	13411	N13 E45	179	1800	3.0
75	1	6	13411	N13 E32	179	2100	3.5
75	1	7	13411	N13 E17	179	1500	2.5
75	1	11	13411	N12 W35	179	1300	2.0
75	1	12	13411	N10 W46	177	1300	2.0
75	1	13	13411	N10 W60	178	1300	2.0
75	1	14	13411	N12 W73	178	1000	1.5
75	1	15	13411	N12 W88	178	500	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13428 CMP DATE 11.0

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	13	13428	N13 W35	153	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

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MCMATH REGION 13415 CMP DATE 11.2

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	6	13415	N13 E60	151	200	2.0									
75	1	7	13415	N13 E45	151	100	1.0									

MCMATH REGION 13419 CMP DATE 11.6

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	11	13419	N20 W01	145	100	1.0									

MCMATH REGION 13431 CMP DATE 11.7

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	14	13431	N08 W39	144	100	1.0									

MCMATH REGION 13420 CMP DATE 12.4

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	9						19535	S26 E33	134	BF)	2				
75	1	10						19535	S26 E22	134	(B)	2				
75	1	11	13420	S26 E09	135	300	2.0		S24 E10				R	0	1	AXX
75	1	12	13420	S26 W02	133	300	2.0									
75	1	13	13420	S27 W15	133	200	1.0									
75	1	14	13420	S28 W26	131	100	1.5									
75	1	15	13420	S28 W41	131	100	1.0									

MCMATH REGION 13435 CMP DATE 12.6

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	16	13435	N38 W54	133	100	1.0									

MCMATH REGION 13425 CMP DATE 12.9

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	12	13425	S07 E04	127	100	2.0									

MCMATH REGION 13416 CMP DATE 13.0 RETURN OF REGION 13381 ROTATION 2

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	6	13416	S12 E87	124	300	1.0									
75	1	7	13416	S12 E69	127	200	2.5									

MCMATH REGION 13429 CMP DATE 13.3

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	13	13429	S23 W05	123	100	1.0									
75	1	14	13429	S24 W18	123	100	1.5									
75	1	15	13429	S25 W33	123	100	1.0									

MCMATH REGION 13430 CMP DATE 13.8

			CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	1	13	13430	N15 E01	117	100	1.0									

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MCMATH REGION 13433 CMP DATE 14.0

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	15	13433	N30 W24	114	200	1.5								
75	1	16	13433	N30 W36	115	100	1.0								

MCMATH REGION 13436 CMP DATE 14.8

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	15	13436	N05 W24	103	100	2.5								
75	1	17	13436	N05 W36	98	200	2.0								

MCMATH REGION 13423 CMP DATE 15.1 RETURN OF REGION 13380 ROTATION 3

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	8							N15 E81				B	200	1 HXX
75	1	9						19536	N13 E66	101	(AP)	3			
75	1	10						19536	N13 E54	102	(AP)	5			
75	1	11	13423	N16 E45	99	1400	3.0	19536	N13 E41	102	(AP)	5	R	140	3 HAX
75	1	12	13423	N18 E34	97	1300	2.5	19536	N13 E25	102	(AP)	5	B	150	2 HSX
75	1	13	13423	N17 E20	98	1500	2.5	19536	N14 E16	102	(AP)	6	B	150	1 HSX
75	1	14	13423	N16 E06	99	1400	2.5	19536	N14 E02	102	(BP)	5	B	150	1 HSX
75	1	15	13423	N16 W09	99	1300	3.0	19536	N13 W10	102	(BP)	5	B	140	7 CSX
75	1	16	13423	N16 W20	99	1300	3.0	19536	N14 W25	103	(AP)	5	B	130	1 HSX
75	1	17	13423	N16 W33	95	1100	2.5	19536	N14 W37	102	(AP)	5	B	100	3 HSX
75	1	18						19536	N15 W50	102	(AP)	4	B	90	1 HSX
75	1	19						19536	N14 W62	101	(AP)	4	B	100	1 HSX
75	1	20	13423	N16 W74	100	1200	2.0	19536	N14 W77	103	(AP)	4	B	80	1 HSX
75	1	21	13423	N16 W84	97	700	1.5								

MCMATH REGION 13422 CMP DATE 15.8

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	11	13422	N05 E54	90	700	2.5	19537	N03 E57	86	(AF)	2			
75	1	12	13422	N05 E42	89	800	3.0	19537	N05 E44		AF		B	10	1 AXX
75	1	13	13422	N05 E28	90	1100	3.0	19537	N04 E32	86	A				
75	1	14	13422	N04 E15	90	1000	2.5								
75	1	15	13422	N03 E00	90	1100	3.0	19537	N02 E02	90	(B)	3	B	40	14 CRX
75	1	16	13422	N04 W12	91	900	3.0	19537	N02 W12	90	(B)	2	B	30	2 CRO
75	1	17	13422	N04 W26	88	900	2.5								
75	1	20	13422	N04 W66	92	900	2.0								
75	1	21	13422	N03 W80	93	1000	1.5								

MCMATH REGION 13432 CMP DATE 16.0

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	14	13432	S15 E18	87	100	1.5								

MCMATH REGION 13424 CMP DATE 16.2

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	1	11	13424	N16 E61	83	300	1.5								
75	1	12	13424	N16 E49	82	200	1.5								
75	1	13	13424	N17 E35	83	200	1.0								
75	1	14	13424	N16 E19	86	300	1.0								
75	1	15	13424	N15 E05	85	200	1.0								
75	1	16	13424	N16 W07	86	200	1.5								
75	1	17	13424	N16 W20	82	200	1.0								
75	1	20	13424	N16 W60	86	200	1.0								

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MCMATH REGION 13421 CMP DATE 17.0

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	11	13421	S12 E72	72	500	2.0
75	1	12	13421	S11 E58	73	500	2.0
75	1	13	13421	S11 E44	74	300	2.0
75	1	14	13421	S12 E32	73	400	2.0
75	1	15	13421	S13 E17	73	400	2.0
75	1	16	13421	S13 E05	74	400	2.0
75	1	17	13421	S13 W08	70	300	2.0
75	1	20	13421	S13 W48	74	300	2.0
75	1	21	13421	S13 W63	76	500	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13426 CMP DATE 18.7 RETURN OF REGION 13382 ROTATION 3

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	12	13426	N12 E79	52	600	1.0
75	1	13	13426	N13 E65	53	1000	1.5
75	1	14	13426	N12 E53	52	1100	2.0
75	1	15	13426	N12 E39	51	1000	2.5
75	1	16	13426	N12 E28	51	1100	2.0
75	1	17	13426	N13 E14	48	1000	2.0
75	1	18					
75	1	20	13426	N13 W25	51	1200	2.0
75	1	21	13426	N12 W40	53	900	1.5
75	1	23	13426	N13 W67	53	700	1.5
75	1	24	13426	N13 W81	53	400	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
19538	N15 W02	54	(A)	1			

MCMATH REGION 13439 CMP DATE 20.1

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	17	13439	N08 E31	31	100	2.0
75	1	18					
75	1	19					
75	1	20	13439	N07 W07	33	800	3.0
75	1	21	13439	N07 W20	33	700	3.0
75	1	22					
75	1	23	13439	N07 W50	36	600	2.0
75	1	24	13439	N07 W65	37	600	2.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
19539	N06 E20	32	(B)	3	B	20	13	BXO
19539	N06 E07	32	(BP)	4	B	40	7	CSO
19539	N06 W08	34	(BP)	4	B	40	3	CSO
19539	N07 W23	36	(BP)	3	R	20	5	BXO
19539	N07 W39	34	(BP	2	B	10	3	BXO
19539	N07 W53	40	(AP)	3	H	50	4	BXO

MCMATH REGION 13440 CMP DATE 20.8

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	19	13440				
75	1	20	13440	N09 E03	23	200	2.5
75	1	21	13440	N08 W11	24	200	3.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
19540	N08 E15	24	A				

MCMATH REGION 13437 CMP DATE 21.1

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	15	13437	S22 E59	20	100	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13446 CMP DATE 21.2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO,	LAT CMD	L	AREA	INT
75	1	24	13446	S19 W48	20	100	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13447 CMP DATE 21.4

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	24	13447	N33 W45	17	100	1.0
75	1	26	13447	N33 W80	26	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

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MCMATH REGION 13434 CMP DATE 22.4 RETURN OF REGION 13394 ROTATION 2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	15	13434	N13 E85	5	300	1.5
75	1	16	13434	N13 E75	4	400	1.5
75	1	17	13434	N14 E62	0	400	2.0
75	1	20	13434	N14 E23	3	300	2.0
75	1	21	13434	N15 E10	3	300	2.0
75	1	23	13434	N15 W17	3	200	1.5
75	1	24	13434	N15 W32	4	200	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13441 CMP DATE 22.7

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	21	13441	N05 E15	359	500	3.0
75	1	22					
75	1	23	13441	N05 W14	0	400	2.5
75	1	24	13441	N04 W28	0	300	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
19541	N05 E15	359	(BP)	2 R	10	4	BXO
19541	N05 W03	359	B	B	10	3	BXO

MCMATH REGION 13448 CMP DATE 23.0

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	24	13448	N33 W24	356	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13444 CMP DATE 23.2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	23	13444	S05 W07	353	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13450 CMP DATE 23.8

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	26	13450	S10 W39	345	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13438 CMP DATE 23.9 RETURN OF REGION 13404 ROTATION 2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	17	13438	N10 E85	338	200	1.0
75	1	20	13438	N10 E44	343	600	2.0
75	1	21	13438	N09 E30	344	800	2.0
75	1	22					
75	1	23	13438	N08 E03	343	400	2.0
75	1	24	13438	N08 W12	344	400	1.5
75	1	26	13438	N08 W40	346	400	1.5
75	1	27	13438	N08 W53	346	400	1.0
75	1	28	13438	N08 W66	347	200	1.0
75	1	29					

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
	N08 E17			B	10	2	BXO
	N08 E11			M	0	1	AXX
19544	N05 W65	333	AP				

MCMATH REGION 13451 CMP DATE 25.1

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	26	13451	N07 W22	328	200	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13457 CMP DATE 25.3

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	28	13457	S23 W45	326	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

REGIONS OF SOLAR ACTIVITY

JANUARY 1975

MCMATH REGION 13452 CMP DATE 25.4

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	26	13452	S18 W18	324	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13449 CMP DATE 25.9

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	24	13449	N48 E15	317	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13445 CMP DATE 27.0 RETURN OF REGION 13397 ROTATION 2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	21	13445	N06 E76	298	200	1.5
75	1	23	13445	N04 E45	301	400	1.0
75	1	24	13445	N04 E30	302	300	1.0
75	1	25					
75	1	26	13445	N04 E04	302	500	2.5
75	1	27	13445	N04 W09	302	400	2.0
75	1	28	13445	N04 W23	304	300	1.5
75	1	30	13445	N03 W47	302	200	1.0
75	1	31	13445	N02 W60	301	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
19543	N04 E12	307	(BP	3	B	20	1	AXX
	N05 E09				H	10	1	AXX

MCMATH REGION 13454 CMP DATE 27.0

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	27	13454	N23 W09	302	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13443 CMP DATE 28.2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	21	13443	S09 E88	286	700	1.5
75	1	23	13443	S09 E60	286	600	2.5
75	1	24	13443	S09 E46	286	700	2.5
75	1	26	13443	S10 E21	285	600	2.5
75	1	27	13443	S10 E07	286	500	2.0
75	1	28	13443	S10 W06	287	400	2.0
75	1	30	13443	S10 W33	288	300	1.5
75	1	31	13443	S10 W45	286	300	1.5
75	2	1	13443	S11 W58		300	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
19542	S03 E58	289	AP				

MCMATH REGION 13458 CMP DATE 28.2

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	28	13458	N06 W06	287	100	2.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13455 CMP DATE 29.5

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	27	13455	N24 E23	270	100	2.0
75	1	28	13455	N23 E11	270	100	2.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

MCMATH REGION 13456 CMP DATE 29.6

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	1	27	13456	N19 E25	268	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS

REGIONS OF SOLAR ACTIVITY

JANUARY 1975

MCMATH REGION 13462 CMP DATE 29.6

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	1	30	13462	N35 W14	269	100	1.0								
75	1	31	13462	N36 W26	267	100	1.0								
75	2	1	13462	N36 W40		100	1.5								

MCMATH REGION 13467 CMP DATE 29.6

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	2	3	13467	S16 W65		100	1.0								

Note: Region 13422 is mostly a new plage formed in the same location as old region 13384 of the previous rotation.
Region 13439 formed on the disk, in the location of old 13983.
No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on January 3, 8, 9, 10, 18, 19, 22, 25 and 29, 1975.
No sunspot observations were made at Mt. Wilson Observatory on January 8, 27, 30 and 31, 1975.

DAILY CALCIUM PLAGE INDEX

JANUARY 1975

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
75	1	1	4.7	75	1	11	8.5	75	1	21	7.6
75	1	2	5.3	75	1	12	8.7	75	1	22	*
75	1	3	*	75	1	13	9.8	75	1	23	4.2
75	1	4	5.7	75	1	14	8.8	75	1	24	3.5
75	1	5	7.9	75	1	15	10.2	75	1	25	*
75	1	6	10.7	75	1	16	9.6	75	1	26	3.7
75	1	7	8.3	75	1	17	7.7	75	1	27	2.5
75	1	8	*	75	1	18	*	75	1	28	1.9
75	1	9	*	75	1	19	*	75	1	29	*
75	1	10	*	75	1	20	8.1	75	1	30	1.6
								75	1	31	1.7

* NO OBSERVATIONS

SUDDEN IONOSPHERIC DISTURBANCES

JANUARY 1975

DAY	UNIVERSAL TIME START	END	MAX	IMP	WIDE SPREAD INDEX	NUMBER OF STATION REPORTS BY TYPE SWF	SCNA	SEA	SPA	LF-SPA	SES	SFD	KNOWN FLARE	McMATH REGION
03	0325	0456	0333	1-	3				2				0323	13404
03	0732E	0753	0745U	1-	1			1					0740E	13400
26	1710	1746	1713	1-	1								*	

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT) and STATION
01-11	0000-2400 A36
01	0000-2400 A37
03	1400-1733 UM (17 kHz)
04	1924-2017 UM (16 kHz)
05	0000-2400 A28
07	0000-2400 TN, 1007-1337 UM (16 kHz)
08	0000-2400 A19
09	0000-2400 A19, 0809-0920 UM (16 kHz), 1718-1800 TM
10	0000-2400 A29, 1400-1717 UM (17 kHz)
11	0000-2400 A28, 0000-2400 A29
12	0000-2400 A29
13	0000-2400 A32
14	0000-2400 A32, 1005-1330 UM (17 kHz)
15	2114-2119 TM
16	0000-2400 A28
17	1357-1713 UM (17 kHz)
19-20	0712-0145 BO
21	1003-1336 UM (16 kHz)
22	1905-1945 UM (17 kHz)
23	0000-2400 A28
24	1400-1745 UM (17 kHz)
29	1300-1815 MC
30	0000-2400 A28
31	0000-2400 A28, 1400-1730 UM (17 kHz)

STATIONS REPORTING FOR JANUARY 1975

AAVSO (A1) (SEA) (A1, A19, A21, A26, A28, A29, A30, A31, A32, A35, A36, A37, A40) (SES) (A31) (SWF)
BOULDER (BO) (SCNA, SEA)
DARMSTADT (DA) (SWF)
DEBRE ZEIT (DE) (SPA)
HERSTMONCEUX (HC) (SEA)
HIRAISO (HI) (SWF)
HOBART (TA) (SEA)
HUANCAYO (HU) (SWF)
INUBO (IN) (SPA)
JOHANNESBERG (JH) (SES)
MANILA (MA) (SPA)
MCMATH (MC) (SWF, SCNA)
PANSKA VES (PU) (SWF, SEA, SES)
POITIERS (PO) (SEA)
PRESTON (LO) (SEA)
SAO PAULO (UM) (SPA, SES)
ST CLOUD (SC) (SES)
TABLE MOUNTAIN (TM) (SPA, LF-SPA)
TORINO (TN) (SPA)
UPICE (UI) (SEA)

SIDS BY McMATH REGION

DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	18	19	20	21	22	23	24	25	26	27	28	29	30	31
REGION																																
40			1																													
04			1																													
X-RAY																																
UNKNOWN																																
NO FP																										1						

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JANUARY 1975

DAY	TIMES OF OBSERVATION		STATION	EVENTS													SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND				
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.		
01	0000	0919	MANI														
	0000	0735	CULG							0000	0045	1					IIIS
			CULG							0045	0301						IIIN,W
	0734	1520	DURN														
	1218	2115	SGMR														
	1430	2400	BOUL														
	1417	2346	HARV							1945	1946	1					IIIG
	2035	2400	CULG							2035	2230						IIIN,W
02	0000	0919	MANI														
	0000	0735	CULG							0150	0230						IIIN,W
			CULG				0514.5	0515	1	0514.5	0515	1					IIIG,U
	0734	1524	DURN														
	1218	2115	SGMR														
	1417	2346	HARV														
	1430	2400	BOUL														
	2036	2400	CULG							2040	2400	1					IIIN
			CULG							2125.5		1	2125.5		1		IIIB
	2220	2400	MANI														
03	0000	0735	CULG							0000	0736						IIIS,W
			CULG							0000	0736	1					N,RS,DP
			CULG							0406	0407	1					IIIG
			CULG							0442.5	0443.5	1					IIIG
			CULG							0446	0447	1					IIIG
			CULG							0523.5	0524.5	1					IIIG
			CULG							0621	0622	1					IIIG
			CULG				0651	0652	1	0650.5	0653	1					IIIGG
			CULG				0654	0656	1	0653	0657	2	0654	0656	1		IIIGG
	0000	0920	MANI										0654.2	0655.8	2		IIIG
	0734	1524	DURN														
	0829	1520	DWIN				0829	1520	1	0829	1520	1					IW
			DWIN							0918.5	0919.5	1					IIIG
			DWIN							0923.3	0923.7	1					IIIG
	1218	2115	SGMR														
	1417	2347	HARV														
	2036	2400	CULG							2036	2400						IIIS,W
	2220	2400	MANI														
			CULG				2233.5	2234	1	2232.5	2235	1					IIIG
	1430	2400	BOUL							2234.0	2242.2	1	2234.0	2242.2	1		IIIG
			BOUL							2312.6	2315.8	1	2312.6	2315.8	1		IIIG
			CULG							2355		2					RS,DP
04	0000	0732	CULG							0000	0732						IIIS,W
	0000	0920	MANI														
			CULG							0017.5	0633	1					N,RS,DP
			CULG							0019		2					RS,DP
			CULG				0302.5	0304	1	0302.5	0305.5	1					IIIG
	1219	2117	SGMR														
	0734	1524	DURN							1422.2	1422.3	1					IIIG
	1430	2400	BOUL							1717.7	1717.8	1	1717.7	1717.8	1		III
	1417	2345	HARV							1903	1904	3	1903	1904	3		IIIG
			BOUL							1903.1	1903.5	2	1903.1	1903.5	2		III
			BOUL							1927.8	1928.0	1	1927.8	1928.0	1		III
	2037	2400	CULG							2037	2400						IIIN,W
	2220	2400	MANI														
05	0000	0920	MANI														
			CULG							0315	0737	1					IS
	0000	0737	CULG							0315	0737						IIIS,W
			CULG							0315	0737	1					N,RS,DP
	0734	1449	DURN							0734 E	0810	1					I
	1219	2123	SGMR														
	1430	1600	BOUL							1433.5	1434.3	1	1433.5	1434.3	1		III
	1502	1524	DURN														
			BOUL										1521.2	1600.0	1		CONT
			BOUL										1630	1740	1		CONT
	1417	2349	HARV							1800	1801	3	1800	1801	3		IIIG
			HARV							1920	1921	1	1920	1921	1		IIIG
	1900	2400	BOUL										1950	2350	1		CONT
	2038	2403	CULG							2038	2400	1					IS
			CULG				2038	2307	1								IIIN
			CULG							2038	2400	1					IIIS
	2221	2400	MANI														
			CULG							2325	2336	1	2325	2336	1		IIIGG
06	0000	0737	CULG							0000	0737	1					IS
			CULG							0000	0737	1					IIIN
			CULG				0031	0036	1	0028	0036	2	0031	0036	1		IIIGG
	0000	0921	MANI										0032.8	0035.5	1		IIIG
			CULG							0520	0521	2					IIIG
			CULG							0522.5	0523.5	2	0522.5	0523.5	1		IIIG
			CULG							0715	0716.5	1					IIIG
			CULG							0722	0722.5	2					IIIG
			CULG							0736		1					IIIG,V,U
	0733	1524	DURN				0743.4	0757.5	3	0737.8	0747.9	1					IVP
	1219	2121	SGMR														
	1417	2349	HARV														

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JANUARY 1975

JAN 1975	TIMES OF OBSERVATION		STATION	EVENTS													SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND				
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.		
06	1430	2400	BOUL														
	2222	2400	MANI														
	2039	2400	CULG							2309	2316						IIIN,W,U
07	0000	0738	CULG														
	0000	0922	MANI														
	0731	1530	DURN														
	0800	1454	WEIS														
	0923	1535	OWIN				0923	1536	1	0923	1536	1					IN
	1218	2121	SGMR														
	1417	2346	HARV														
	1430	2400	BOUL										1921.4	1921.7	2		III
	2039	2400	CULG														
	2222	2400	MANI														
08	0000	0922	MANI														
	0000	0739	CULG														
	0731	1530	DURN														
	0804	1507	OWIN														
	0810	1455	WEIS														
	1218	2122	SGMR														
	1417	2351	HARV														
	1430	2400	BOUL														
	2039	2400	CULG														
	2222	2400	MANI														
09	0000	0925	MANI														
	0000	0739	CULG							0124	0739						IIIN,W
			CULG							0656	0700	2					IIIGG
			CULG							0728	0729	2					IIIG
	0731	1530	DURN														
	0810	1345	WEIS							0814.7	0815.4	1					IIIG
	0823	0955	OWIN														
			WEIS							1024.0	1024.4	1					IIIG
			WEIS							1306.2	1306.5	2					IIIG
	1218	2123	SGMR										1306.3	1306.5	1		III
			WEIS							1333.6	1333.9	1					IIIG
			SGMR										1354.7	1355.1	1		III
	1415	1500	WEIS														
	1417	2345	HARV							1820	1903	2	1820	1903	2		IIIN
	1430	2400	BOUL							1820.5	1820.6	1	1820.5	1820.6	1		III
			BOUL							1847.2	1847.8	2	1847.2	1847.8	2		III
			BOUL							1855.8	1857.9	2	1855.8	1857.9	2		IIIG
			HARV							1856	1857	3	1856	1857	3		IIIG
			SGMR										1856.7	1857.1	2		III
			BOUL							1900.4	1903.2	2	1900.4	1903.2	2		IIIG
			HARV							1958	2000	3	1958	2000	3		IIIGG,V
			BOUL							1958.0	1959.5	3	1958.0	1959.5	3		IIIG
			SGMR										1958.3	1959.4	2		III
			HARV							2012	2015	3	2012	2015	3		IIIGG,V,U
			BOUL							2012.0	2015.5	3	2012.0	2015.5	3		III
			SGMR										2012.2	2020.2	2		V
			BOUL							2015.5	2030.0	1	2015.5	2030.0	1		CONT
	2039	2400	CULG							2121	2400	1					IIIN
	2222	2400	MANI														
			CULG							2255	2256	1					IIIG,U
			BOUL							2347.6	2347.8	1					III
			BOUL							2355.6	2356.2	1	2355.6	2356.2	1		IIIG
10	0000	0738	CULG							0000	0738	1					IIIN
	0000	0925	MANI														
			CULG				0246	0247	1	0246	0247.5	1					IIIG
	0731	1046	DURN														
	1217	2124	SGMR														
	1242	1530	DURN							1401.8	1402.1	2					IIIG
	0805	1502	WEIS							1401.8	1402.1	1					IIIG
	1417	2346	HARV							1611		2	1611		2		IIIG
	1548	2400	BOUL							1611.0	1611.6	2	1611.0	1611.6	2		III
	2040	2130	CULG							2040	2130						IIIN,W
	2223	2400	MANI														
	2230	2330	CULG							2240	2330						IIIN,W
11	0000	0925	MANI														
	0030	0730	CULG							0030	0730						IIIS,W
	0731	1530	DURN							1140	1530	D 1					IN
	0805	1505	WEIS							1340.7	1340.8	1					IIIB
	1217	2125	SGMR										1340.8	1341.2	2		III
	1430	2400	BOUL							1540.0	2245	1	1540.0	2245	1		CONT
	1417	2346	HARV							1705	2136	1	1705	2136	1		IIIN
			HARV							1915	1917	2	1915	1917	2		IIIGG
			HARV							1936	1937	1					IIIG
			CULG							2040	2115	1					IS
	2040	2300	CULG							2040	2300	1					IIIS
			CULG				2044	2045	1	2044	2046	2	2045	2046	1		IIIG,V,U
			HARV							2044	2045	3	2044	2046	3		IIIGG,V,U
			SGMR										2044.8	2059.2	1		IIIG
			CULG				2051	2054	1	2051	2054	2					IIIGG
			HARV							2051	2054	2	2051	2052	2		IIIGG
			HARV							2058	2101	3	2058	2101	3		IIIGG,V
			CULG				2058	2059	1	2058	2101	2	2059	2100	1		IIIGG,V,U

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JANUARY 1975

JAN 1975	TIMES OF OBSERVATION		STATION	EVENTS													SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND				
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.		
11			HARV							2106	2107	2					IIIG
			HARV							2112	2114	1	2113		2		IIIG
	2223	2400	HANI														
12	0030	0709	CULG							0030	0400						IIIS,W
			CULG				0304	0304.5	1	0324	0305	2					IIIG,U
			CULG							0400	0730						IIIN,W
			CULG				0707	0708	1	0706	0709	2					IIIG,V
	0000	0925	HANI										0707.5	0708.3	3		III
	0713	0730	CULG							0713 E	0730	1				II	
	0731	1045	DURN														
	0838	1300	HEIS														
	1057	1530	DURN														
	1217	2126	SGMR														
	1430	2400	BOUL							1443.6	1443.7	1	1443.6	1443.7	1		III
			BOUL							1705	2330	1	1705	2330	1		CONT
	1418	2351	HARV							1941	2223	2	1941	2125	2		IIIN
	2040	2400	CULG							2048	2400	1					IIIS,U
			CULG							2100	2400	1					IS
			CULG				2108	2112	1	2108	2112	1					IIIGG
			CULG							2129	2132	2	2129.5	2130.5	1		IIIGG
			HARV							2129	2131	3	2129	2131	3		IIIGG
			CULG							2221	2222	2					IIIG,U
	2223	2400	HANI														
			CULG							2250	2251	1					IIIG,U
13			CULG														
	0000	0331	CULG							0030	0331	1					IIIS
	0000	0925	HANI							0000	0331	1					IS
			CULG														
			CULG							0039.5	0040	2					IIIG
			CULG				0053	0054	1	0052	0055	2					IIIGG,V
			CULG				0227	0228	1	0227	0229	2					IIIG,U
	0500	0735	CULG							0500	0735	1					II
			CULG							0500	0735	1					IIIS
			CULG				0549		1	0549		1					IIIB,U
			CULG							0639	0640.5	1					IIIG,U,V
	0731	1539	DURN							0731 E	1538 D	1					IN
	1308	1507	HEIS							1017.0	1506.0	1					IS
			HEIS							1204.0	1204.2	1					IIIB
	1417	2346	HARV							1418	2346 D	1					I
	1217	2128	SGMR										1418.6	1419.1	1		III
	1430	2400	BOUL							1515.3	1515.7	1	1515.3	1515.7	1		III
			SGMR										1515.4	1515.9	1		III
			HARV							1557	1558	3	1558		3		IIIG
			BOUL							1557.7	1558.4	2	1557.7	1558.4	2		IIIG
			SGMR										1557.9	1558.3	2		III
			BOUL							1600	2242	1	1600	2242	1		CONT
			HARV							1746	2005	1	1746	2005	1		IIIN
	2040	2331	CULG				2040	2331	1	2040	2331	1					IS
			CULG							2048	2331	1					IIIS
			CULG							2150.5	2154.5	2	2152	2154	1		IIIGG,V
			HARV							2151	2154	3	2151	2154	3		IIIGG,V
			BOUL							2151.7	2158.5	1	2151.7	2158.5	1		IIIG
			HARV							2157	2159	3					IIIGG
			CULG				2157	2158	1	2157	2158.5	2					IIIG
			HARV							2206	2207	2					IIIG
	2223	2400	HANI														
			HARV							2338	2339	2					IIIG
			HARV							2344		2					U
14	0000	0927	HANI														
	0104	0717	CULG							0104	0717	1					IS
			CULG							0104	0717	1					IIIS
			CULG				0257.5	0258	1	0256	0300	2					IIIGG,V
	0731	1541	DURN							0731 E	1541 D	2					IN
	0800	1507	HEIS							0800.0	1506.0	1					IS
			HEIS							0938.5	0941.2	2					IIIG
			HEIS							0942.3	0943.5	2					IIIG
			DURN				0942.5	0942.6	2	0942.5	0943.0	2					IIIG
			HEIS							1001.5	1002.5	1					IIIG
			HEIS							1203.0	1203.3	1					IIIG
			DURN							1203.2	1203.3	1					IIIG
			HEIS							1232.7	1232.8	1					IIIB
			HEIS							1302.2	1302.5	1					IIIB
	1417	2347	HARV							1417	2347 D	1					I
	1216	2129	SGMR										1425.4	1427.4	1		IIIG
			HARV							1426	1427	2					IIIG
			HEIS							1426.0	1426.2	1					IIIB
			HARV							1626	2038	1	1626	2038	1		IIIN
	1430	2400	BOUL							1626.5	2303	1	1626.5	2303	1		CONT
			HARV							2010	2012	3	2010	2012	3		IIIGG,V,U
			SGMR										2010.7	2011.7	2		III
			HARV							2015	2019	1					UNCLF
			CULG							2041	2400	1					IIIS
	2041	2400	CULG				2041	2400	1	2041	2400	1					IS
	2224	2400	HANI														
15			CULG							0000	0500	1					IIIS
	0000	0500	CULG				0000	0500	1	0030	0500	1					IS
			CULG							0202	0202.5	2					IIIG,U

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JAN 1975	TIMES OF OBSERVATION		STATION	EVENTS														SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND					
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.			
15			CULG				0212		1	0212		3	0212		1			IIIB
	0000	0927	MANI										0212.2	0212.5	3			III
			CULG							0630	0736	1						IIIS
	0630	0735	CULG				0630	0736	1	0630	0736	1						IS
	0731	1541	DURN							0731 E	1541 D	2						IN
	0802	1507	MEIS							0819.0	1457.0	1						IS
			MEIS							1055.8	1056.0	1						IIIB
			MEIS							1140.8	1141.0	1						IIIG
			MEIS							1305.8	1306.0	1						IIIG
			MEIS							1407.0	1407.3	3						IIIG
			DURN							1407.1	1409.9	3						IIIGG
			MEIS							1409.0	1409.8	2						IIIG
	1216	2130	SGMR										1409.2	1410.0	2			III
			MEIS							1416.0	1416.2	1						IIIG
	1430	2400	BOUL										1540	2318	1			CONT
	1417	2351	HARV							1720	1721	3	1720	1721	3			IIIG,U,V
			SGMR										1720.7	1721.0	1			III
			HARV							1748	2010	1	1803	2010	1			IIIN
			HARV							1938	2350	1						IN
			HARV							1944	1945	2	1944	1945	2			IIIG
			HARV							1959	2002	3	1959	2001	3			IIIGG
			SGMR										2000.0	2000.5	1			III
			CULG				2041	2215										IS,W
			CULG							2041	2400	1						IS
	2041	2400	CULG							2041	2400	1						IIIS
			HARV							2128	2130	2						IIIG
			CULG							2128.5	2129.5	2						IIIG
	2224	2400	MANI															
16	0000	0928	MANI															
			CULG							0134	0500	1						IIIS
	0134	0500	CULG				0134	0500	1	0134	0500	1						IS
			CULG							0250	0251	2						IIIG
	0630	0741	CULG				0630	0650	1	0630	0741	1						IS
			CULG							0630	0741	1						IIIS
	0731	1543	DURN							0731 E	1543 D	1						IN,OC
	0805	0821	MEIS															
	0825	1510	MEIS							0845.0	1428.0	1						IN
			MEIS							0856.9	0857.0	1						IIIG
	1400	2400	BOUL							1428.8	1429.6	1						III
			MEIS							1428.9	1429.1	3						IIIB
	1418	2358	HARV							1429		3						IIIB
			HARV							1542	1544	3	1542	1543	3			IIIG,V
			DURN							1542.2	1542.5	3						IIIG
			BOUL							1542.3	1543.6	2	1542.3	1543.6	2			IIIG
	1215	2131	SGMR										1542.5	1542.8	1			III
			HARV							1756	1757	3						IIIG
			BOUL							1756.5	1756.9	2	1756.5	1756.9	2			III
			BOUL							1802.4	1802.5	1	1802.4	1802.5	1			III
	2041	2332	CULG				2041	2130	1	2041	2331	1						IS
			CULG							2157	2332							IIIN,W
	2224	2400	MANI															
			HARV							2259	2348	1						IN
17	0000	0928	MANI															
	0102	0231	CULG				0102	0231	1	0102	0231	1						IS
			CULG							0102	0231	1						IIIN
			CULG							0108	0109	1						IIIB
			CULG							0404	0534	1						IIIN
	0404	0534	CULG							0404	0534	1						IS
			CULG							0445		1						IIIB
	0731	1543	DURN															
	0800	1513	MEIS							1205.3	1206.0	1						IIIG
			MEIS							1212.6	1213.3	1						IIIG
			MEIS							1301.2	1301.5	1						IIIB
			MEIS							1305.7	1306.3	2						IIIG
	1215	2132	SGMR										1305.8	1306.5	1			IIIG
			MEIS							1308.2	1309.3	2						IIIG,RS
			MEIS							1312.3	1312.8	2						IIIG
	1400	2400	BOUL							1500.4	1500.8	1	1500.4	1500.8	1			III
			BOUL							1639.9	1640.5	1	1639.9	1640.5	1			III
	1417	2346	HARV							1640	2047	2	1640	2047	2			IIIN
			BOUL							1644.8	1646.2	2	1644.8	1646.2	2			III
			HARV							1645	1646	3	1645	1646	3			IIIGG
			SGMR										1645.0	1645.8	1			III
			HARV							1858	1900	3	1858	1900	3			IIIGG,V,U
			SGMR										1858.8	1900.0	3			III
			BOUL							1858.9	1900.5	3	1858.9	1900.5	3			III
			BOUL							1920.5	1920.8	1	1920.5	1920.8	1			III
			HARV							1923	1924	3	1923	1924	3			IIIG,V
			BOUL							1923.0	1924.0	2	1923.0	1924.0	2			IIIG
			SGMR										1923.0	1923.9	2			III
			HARV							1943	1944	1	1943	1944	1			IIIG
			BOUL							1943.0	1943.8	1	1943.0	1943.8	1			III
			BOUL							2019.8	2020.0	1						III
			BOUL							2046.5	2047.0	1	2046.5	2047.0	1			III
			BOUL							2147.8	2148.1	1	2147.8	2148.1	1			III
			HARV							2157	2201	2	2158	2201	2			IIIGG
			BOUL							2157.2	2201.1	2	2157.2	2201.1	2			IIIG
	2202	2400	CULG							2202	2400	1						IIIN

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DAY	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
17			BOUL							2209.3	2209.5	1	2209.3	2209.5	1	III
			BOUL							2212.8	2213.5	1	2212.8	2213.5	1	III
			BOUL							2215.5	2216.0	1	2215.5	2216.0	1	III
			BOUL							2259.0	2259.3	1	2259.0	2259.3	1	III
			CULG							2348	2358	2	2348	2358	1	IIIGG
	2224	2400	MANI										2354.0	2354.4	3	III
			BOUL										2354.2	2354.6	1	III
18	0000	0200	CULG							0000	0200	1				IIIN
			CULG							0053	0054	1				IIIG
	0000	0928	MANI										0148.5	0151.5	1	IIIG
			CULG							0151	0153	2				IIIG
	0333	0530	CULG							0333	0530	1				IIIN
			CULG							0410		1				IIIB
			CULG							0435		1				IIIB
	0700	0742	CULG							0700	0742	1				IIIN
	0731	1543	DURN													
	0757	1334	WEIS							0910.0	0913.5	1				IIIGG
			WEIS							0917.6	0922.6	2				IIIG
			WEIS							0924.6	0929.7	2				IIIGG
			WEIS							0932.5	0934.0	1				IIIG,DP
			WEIS							0937.0	0937.2	1				IIIB
			WEIS							1327.5	1327.9	1				IIIG
			WEIS							1329.4	1332.8	1				IIIGG
	1214	2134	SGMR										1329.4	1332.7	1	IIIG
			SGMR										1412.7	1413.3	1	III
			SGMR										1419.8	1420.0	1	III
	1400	2400	BOUL							1619.3	1619.6	1	1619.3	1619.6	1	III
	1417	2351	HARV							1624	1625	3	1624	1625	3	IIIG,U
			BOUL							1624.1	1624.8	2	1624.1	1624.8	2	III
			SGMR										1624.1	1624.8	1	III
			BOUL							1711.2	1723.2	2	1711.2	1723.2	2	IIIG
			SGMR										1715.9	1716.4	1	III
			HARV							1716	1717	2	1716	1717	2	IIIGG
			BOUL							1802.4	1804.2	1	1802.4	1804.2	1	IIIG
	2042	2130	CULG													
	2224	2400	MANI													
			BOUL							2250.7	2251.5	1	2250.7	2251.5	1	IIIG
	2300	2400	CULG							2318	2400					IIIN,W
19	0000	0200	CULG							0000	0200					IIIN,W
	0330	0530	CULG							0330	0530					IIIN,W
	0000	0928	MANI										0634.3	0634.9	3	III
	0700	0730	CULG							0700	0730					IIIN,W
			CULG				0718	0719	1	0717	0729	2	0718	0719	2	IIIGG,V
	0730	1543	DURN													
	1400	2400	BOUL							1633.2	1633.5	1	1633.2	1633.5	1	III
	1417	2346	HARV							1636	1637	3	1636		3	IIIG,U
			BOUL							1636.8	1637.6	2	1636.8	1637.6	2	III
			HARV							1723	1724	3	1723	1724	3	IIIG
			BOUL							1723.9	1724.3	2	1723.9	1724.3	2	III
			HARV							1732		3	1732		3	IIIB
	1213	2135	SGMR										1732.2	1746.6	1	IIIG
			BOUL							1732.2	1732.6	1	1732.2	1732.6	1	III
			HARV							1746	1747	3	1746	1747	3	IIIG
			BOUL							1746.2	1747.0	1	1746.2	1747.0	1	III
			HARV							1755	1756	3	1755	1756	3	IIIG
	2222	2400	MANI													
	2044	2344	CULG							2325	2344					IIIN,W
20	0000	0332	MANI													
	0100	0230	CULG													
	0400	0530	CULG													
	0700	0743	CULG							0731						IIIB,W
	0730	1343	DURN							0900.1	0900.2	2				III
	0800	1517	WEIS							1007.8	1008.8	2				IIIG
			DURN				1008.2	1008.5	1	1008.0	1015.6	3				IIIGG
			WEIS							1010.4	1012.0	2				IIIG
			WEIS							1013.2	1016.0	3				IIIGG
			DURN							1030.0	1030.9	2				IIIGG
			DURN							1044.9	1045.0	3				IIIG
	1400	1700	BOUL													
	1417	2345	HARV													
			DURM							1505.0	1505.1	3				III
	1213	2135	SGMR										1912.9	1916.3	1	IIIG
	2000	2400	BOUL													
	2043	2244	CULG							2143	2244					IIIN,W
	2224	2400	MANI													
	2312	2400	CULG							2312	2400					IIIN,W
			CULG							2355		2				IIIB,V
21	0000	0200	CULG							0000	0200	1				IIIN
	0000	0932	MANI													
			CULG							0007	0008	1				IIIG
			CULG							0110	0111	1				IIIG
	0330	0743	CULG							0330	0532	1				IIIN
	0729	1546	DURN													
	0756	1519	WEIS													
	1212	2137	SGMR													
	1400	2400	BOUL													

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SPECTRAL OBSERVATIONS

JANUARY 1975

JAN 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
21	1417	2347	HARV													
	2043	2400	CULG							2052.5						IIIB,W
	2224	2400	MANI													
22	0000	0932	MANI													
	0000	0300	CULG							0041	0300					IIIN,W
	0430	0743	CULG							0430	0502					IIIN,W
	0728	1545	DURN													
	0757	1236	MEIS													
	1211	2139	SGMR													
	1246	1522	MEIS													
	1400	2400	BOUL													
	1418	2346	HARV													
	2044	2400	CULG													
	2224	2400	MANI													
23	0000	0932	MANI													
	0000	0300	CULG													
	0000	0030	BOUL													
	0430	0740	CULG													
	0728	1546	DURN													
	0925	1523	MEIS													
	1211	2140	SGMR													
	1400	2400	BOUL													
	1417	2346	HARV													
	2130	2400	CULG													
	2224	2400	MANI													
24	0000	0932	MANI													
	0000	0743	CULG													
	0000	0030	BOUL													
	0727	1549	DURN													
	0750	1525	MEIS													
	1210	2141	SGMR													
	1400	2400	BOUL													
	1417	2345	HARV													
	2045	2400	CULG													
	2224	2400	MANI													
25	0000	0932	MANI													
	0000	0030	BOUL													
	0000	0744	CULG							0116	0119	1				IIIG,V,U
	0727	1549	DURN													
	0750	1146	MEIS													
	1209	2143	SGMR													
	1406	2345	HARV													
	1436	1525	MEIS													
	1400	2400	BOUL							1948.7	1949.2	1	1948.7	1949.2	1	III
	2045	2400	CULG													
	2224	2400	MANI													
26	0000	0932	MANI													
	0000	0743	CULG													
	0000	0030	BOUL													
	0726	1549	DURN													
	0752	1528	MEIS													
	1209	2144	SGMR													
	1400	2400	BOUL													
	1405	2346	HARV													
	2045	2400	CULG													
	2224	2400	MANI													
27	0000	0932	MANI													
	0000	0715	CULG													
	0000	0030	BOUL													
	0726	1202	DURN													
	0752	1528	MEIS													
	1207	2145	SGMR													
	1400	1800	BOUL													
	1406	2346	HARV													
	1417	1555	DURN													
	2045	2400	CULG													
	2100	2400	BOUL													
	2224	2400	MANI													
28	0000	0932	MANI													
	0000	0743	CULG													
	0000	0030	BOUL													
	0723	1600	DURN													
	0743	1148	MEIS													
	1206	2145	SGMR													
	1218	1529	MEIS													
	1400	2000	BOUL													
	1402	2348	HARV													
	2045	2400	CULG													
	2224	2400	MANI													
	2300	2400	BOUL													
29	0000	0030	BOUL													
	0000	0932	MANI													

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JANUARY 1975

DAY OF 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
29	0000	0745	CULG													
	0720	1606	JURN													
	0744	1530	WEIS													
	1206	2148	SGMR													
	1400	2400	BOUL													
	1401	1900	HARV													
	1927	2245	HARV													
	2045	2400	CULG													
	2224	2400	MANI													
30	0000	0932	MANI													
	0000	0745	CULG													
	0000	0030	BOUL													
	0718	1213	JURN													
	0745	1531	WEIS													
	1205	2149	SGMR													
	1244	1605	JJRN													
	1400	2400	BOUL													
	1402	2346	HARV													
	2045	2400	CULG													
	2224	2400	MANI													
31	0000	0932	MANI													
	0000	0745	CULG													
	0000	0030	BOUL													
	0716	1606	JJRN													
	0925	1535	WEIS													
	1204	2150	SGMR													
	1400	2400	BOUL													
	1401	2345	HARV													
	2045	2400	CULG													
	2224	2400	MANI													

The symbols used in connection with the spectral type in describing the important bursts are as follows:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of bursts
C = Underlying continuum (particularly with type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
W = Weak
P = Pulsations
CONT = Continuum
UNCLF = Unclassified activity

SELECTED SOLAR EVENTS

JANUARY 1975

Culgoora

UT Date 1975. JANUARY	HELIOGRAPH EVENT							Spectral Type	REMARKS
	Start (UT)	End (UT)	Freq. (MHz)	Positions: Central Dist. ($R_\odot$)	Positions: Position Angle (Deg.)	Polarization	Intensity (1-3)		
03	0446	0448	160	0.3	70	0	1 }		
			80	0.4	70	0	2 }	IIIG	*
			43.25	0.4	70	-	1 }		
13	2300	0500	160	0.5	60	R	1-2	IS }	Persisted with varying intensity to January 17
			80	0.7	60	0	2	IS }	
			43.25	0.9	50	-	1	IIIS}	
18	0151	0153	160	1.1	300	0	1 }		
			80	1.4	310	0	2 }	IIIG	*
			43.25	1.7	330	-	2 }		

Days without Heliograph observations: 26, 27

* Other type IIIs observed at same position during day.

COSMIC RAY INDICES

(Neutron Monitors)

JANUARY 1975

JAN 1975	THULE Average cts/hr	ALERT Average cts/hr	DEEP RIVER Average cts/hr	CALGARY Average cts/hr	SULPHUR MT Average cts/hr	KIEL Average cts/hr	CLIMAX Average cts/hr	TOKYO Average cts/hr
1	4438.8	7357.2	6878.8	11616.4	8713.8	6198.7	4155.9E*	3551.2
2	4458.5	7391.2	6885.3	11668.9	8736.7	6209.8	4166.4E	3557.0
3	4468.2	7404.3	6904.2	11698.1	8783.6	6216.5	4172.2E	3557.3
4	4428.2	7354.4	6877.0	11636.8	8737.4	6194.6	4153.8E	3552.8
5	4412.0	7309.6	6850.0	11570.1	8686.8	6168.8	4144.4E	3548.7
6	4409.5	7311.1	6837.0	11520.8	8672.6	6166.1	4129.2E	3526.2
7	4357.5	7204.0	6741.3	11344.4	8498.9	6111.4	4082.4E	3519.0
8	4363.8	7212.0	6707.4	11351.0	8549.6	6110.5	4066.2E	3489.5
9	4423.9	7347.8	6790.8	11504.6	8643.7	6156.5	4134.0E	3514.8
10	4463.7	7390.4	6837.6	11635.6	8735.2	6184.2	4162.6E	3538.8
11	4491.6	7439.3	6886.5	11726.9	8785.5	6222.7	4184.0E	3553.7
12	4530.3	7508.1	6958.5	11743.3	8807.4	6269.5	4182.6E	3565.5
13	4456.3	7386.0	6880.5	11602.8	8675.1	6222.4	4143.6	3542.3
14	4450.0	7378.2	6876.0	11610.0	8688.2	6187.6	4136.9	3541.2
15	4415.5	7311.2	6863.5	11519.4	8579.6	6165.7	4104.2	3513.3
16	4389.0	7264.0	6811.2	11469.7	8551.3	6120.3	4080.4	3515.5
17	4372.3	7260.0	6802.8	11401.0	8527.2	6136.3	4080.8	3525.3
18	4391.5	7276.9	6820.4	11480.4	8567.3	6158.9	4095.4	3538.7
19	4420.0	7320.7	6854.5	11545.4	8601.0	6183.3	4119.9	3549.7
20	4437.8	7346.4	6897.6	11609.7	8676.8	6200.0	4143.4	3554.1
21	4467.6	7393.5	6914.0	11702.6	8729.7	6233.8	4171.2	3554.2
22	4485.0	7436.9	6931.5	11730.6	8753.0	6256.3	4182.6	3558.9
23	4500.9	7459.0	6959.7	11756.1	8788.3(20)	6299.8	4190.7	3551.6
24	4495.8	7437.5	6938.3	11751.0	8817.2(12)	6271.6	4190.2	3540.4
25	4510.9	7456.8	6963.6	11798.7	8813.6	6284.1	4180.8	3552.8
26	4520.7	7454.0	7005.3	11858.4	8871.4	6277.7	4207.2	3553.7
27	4531.0	7464.5	6981.5	11857.4	8867.6	6302.8	4216.2	3556.7
28	4533.5	7459.5	6966.0	11838.5	8878.4	6334.2	4227.1	3565.9
29	4522.7	7448.0	6969.8	11868.6	8881.1	6312.6	4218.5	3559.5
30	4539.0	7460.9	6979.1	11859.2	8883.2	6282.7	4212.1	3559.6
31	4535.3	7454.7	6973.4	11873.3	8907.6	6287.4	4225.7	3565.0
MEAN	4458.7	7377.4	6888.5	11650.0	8722.9	6217.0	4156.8	3544.3

( ) Number of hours for which data are available if less than 24.
Asterisk indicates sum of both sections at Climax is less than 40 hours.

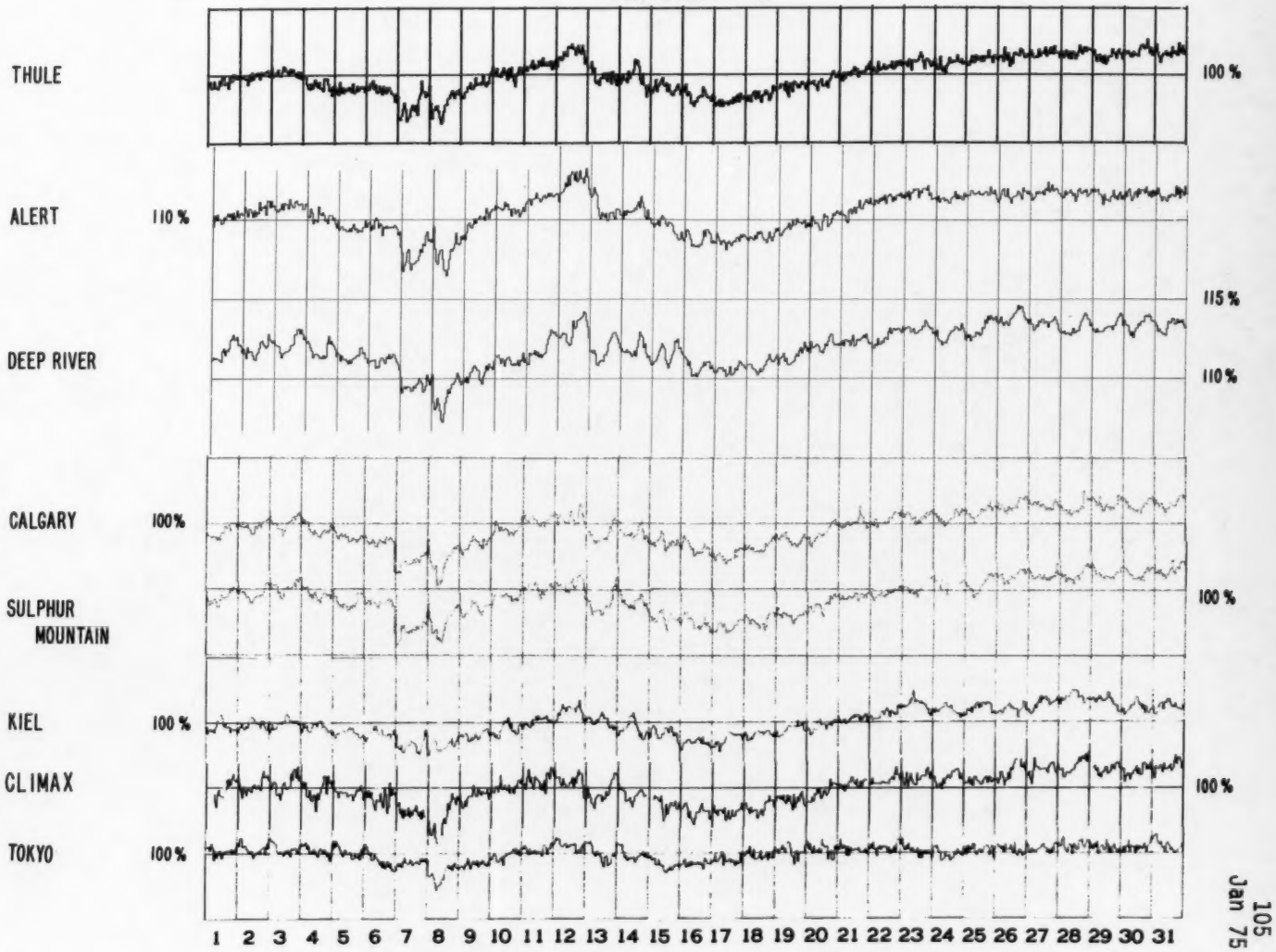
Thule, Alert, Calgary, Sulphur Mountain, Kiel and Climax Scaling Factors = 100.
Deep River Scaling Factor = 300.
Tokyo Scaling Factor = 128.

N: One section normalized by multiplicative factor.
E: One section estimated from sections ratio.

COSMIC RAY INDICES

(Neutron Monitors)

JANUARY 1975



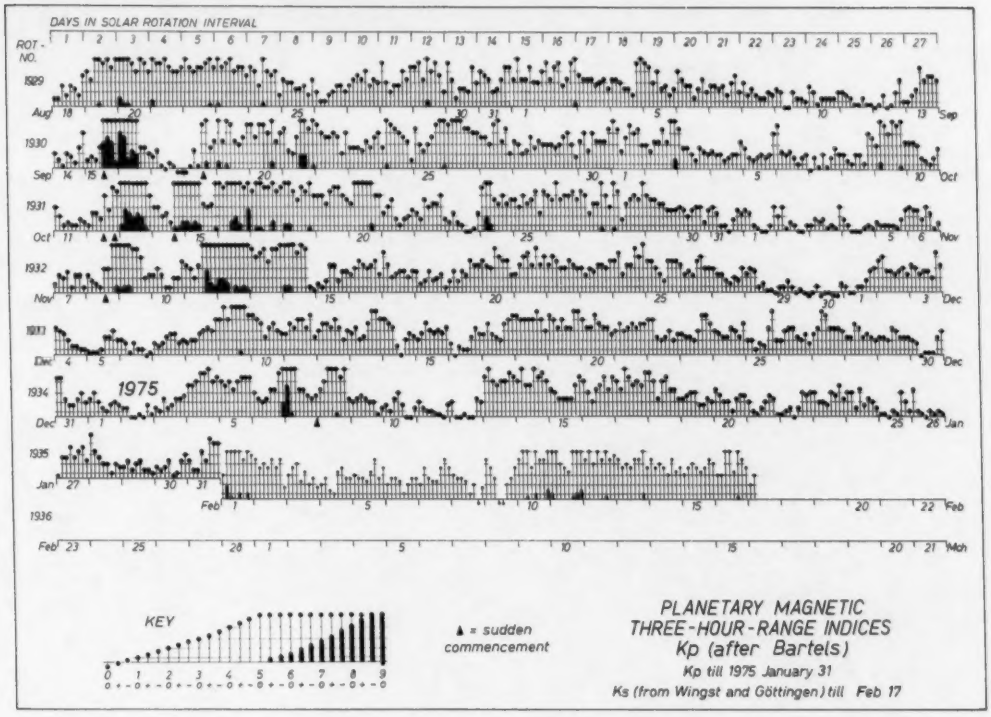
105
Jan 75

GEOMAGNETIC ACTIVITY INDICES

JANUARY 1975

Day	Three-Hour Range Indices Kp									Prel Ci	Cp	Ap	aa				
	1	2	3	4	5	6	7	8	Sum				N	S	M		
1	2+	3	2	1+	1	2-	2	2-	15	0.3	0.4	7	17	18	20	15	
2QQ	1+	1+	0+	0+	1-	0+	2-	1-	7-	0.2	0.1	4	8	6	6	8	CC
3	1+	1	2+	1+	2-	2+	2+	3-	15	0.5	0.4	7	13	21	14	21	
4 D	4-	4-	4	5-	5-	5	4	4+	34	1.5	1.3	32	64	54	44	75	
5	4	4-	4	3+	4	4+	4+	4+	32	1.3	1.2	27	52	39	36	55	
6	3	2+	2	2+	3+	3+	5-	6+	27+	1.3	1.2	26	46	35	19	62	
7 D	8-	5+	5	3+	3+	3-	2+	3-	32+	1.4	1.5	44	50	42	70	22	
8 D	3+	4	5	5	5+	4+	5	2+	34+	1.6	1.4	36	50	91	80	61	
9	2	2+	3-	2+	2	2	1-	1+	15+	0.4	0.4	7	18	14	17	16	
10 Q	2-	1	2+	3	2-	0+	0+	1+	12-	0.1	0.3	6	12	12	18	7	KK
11QQ	2	1+	1	1	1-	1-	0+	2-	9-	0.2	0.1	4	8	9	10	7	CC
12QQ	2	0+	0+	1-	0+	0+	2+	2	8+	0.2	0.1	4	7	10	7	10	C
13 D	4+	5	4	4-	4	4	5-	4+	34	1.5	1.3	32	47	59	53	53	
14 D	4	5	4-	4-	5	4+	5-	4	34+	1.5	1.3	33	52	57	47	62	
15	3+	3	2+	2+	2+	2+	4-	4+	24-	0.9	0.9	15	27	36	25	37	
16	4	3	2	3+	4-	4+	3+	4+	28	1.3	1.1	21	41	47	35	53	
17	4	3+	5	4+	4-	4	4-	5-	33-	1.2	1.3	29	50	41	42	49	
18	5-	4	2+	4	4+	3+	3+	2+	28+	1.2	1.1	22	41	28	34	35	
19	2+	3-	3	3	2-	2-	2+	2	19-	0.6	0.6	10	18	24	25	16	
20	3+	3-	2	2	1	2+	3-	3-	19-	0.5	0.6	10	17	17	15	20	
21 Q	2	1	1-	1+	2	3-	2+	1-	13-	0.3	0.3	6	13	14	10	18	
22 Q	1-	1	1+	0+	1+	3	3-	3	13+	0.5	0.4	8	19	13	8	24	
23	3	2	2	2-	3	3-	4-	2+	20+	0.9	0.7	12	29	21	19	32	
24	3	3	1+	3+	2-	2+	2	1+	18	0.5	0.6	10	20	15	19	17	
25QQ	1-	1-	0+	1	1-	3	2	1	9+	0.4	0.2	5	11	10	7	15	KK
26QQ	3+	1	1-	0+	1	1-	1	1-	9-	0.2	0.2	5	8	9	9	8	C
27	1-	3-	3-	4-	3-	3+	4-	2+	22-	1.0	0.8	14	25	35	26	34	
28	5-	3+	3-	2	2	1	2	2-	19+	0.7	0.7	12	21	27	32	17	
29 Q	2-	2+	1+	2	2+	1+	1+	1	13+	0.2	0.3	6	10	14	13	11	K
30 Q	2-	1+	2-	2+	1-	1	2+	3	14	0.5	0.4	7	15	18	14	19	
31	2+	1+	1+	3+	2+	4+	4	4	23	1.0	0.9	16	39	42	21	61	
									MEAN	0.77	0.71	16	27.4	28.3	27.9		

GEOMAGNETIC ACTIVITY INDICES



DAILY AVERAGE INDICES Ap

DAY	1974 FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1975 JAN
1	13	20	17	9	28	10	6	24	28	6	6	7
2	12	18	15	18	18	12	22	32	30	5	15	4
3	8	20	39	24	19	9	35	16	12	6	15	7
4	7	10	35	34	9	31	24	20	8	3	9	32
5	8	18	18	35	6	74	21	19	10	5	7	27
6	7	20	26	6	6	130	20	14	11	10	4	26
7	10	13	18	15	3	15	22	12	6	7	8	44
8	5	17	13	13	6	36	16	7	10	21	13	36
9	4	33	16	11	7	15	16	5	39	39	42	7
10	14	30	28	3	15	20	16	6	10	10	20	6
11	30	32	19	5	32	14	10	4	6	48	21	4
12	40	15	3	5	29	23	5	6	17	70	18	4
13	20	10	7	4	21	12	6	16	86	36	22	32
14	12	16	5	10	18	23	5	9	30	38	13	33
15	4	3	4	30	37	10	4	73	50	10	14	15
16	7	42	4	26	16	10	6	88	58	16	8	21
17	11	9	6	38	15	8	6	3	47	14	18	29
18	1	3	48	24	10	6	10	19	43	8	28	22
19	4	2	39	18	13	6	40	34	29	14	27	10
20	12	23	46	18	18	11	46	35	41	22	21	10
21	23	68	35	18	7	9	39	43	10	24	19	6
22	14	39	31	22	8	8	37	24	15	18	14	8
23	44	42	29	25	7	82	36	16	5	15	17	12
24	29	34	19	39	8	51	26	26	38	26	14	10
25	34	28	20	14	10	22	13	30	22	19	12	5
26	28	20	21	11	40	20	7	38	28	17	12	5
27	26	22	19	14	54	24	18	25	25	9	21	14
28	27	18	23	10	26	18	20	14	29	6	12	12
29		34	19	7	19	13	31	16	18	3	11	6
30		20	16	17	15	8	17	21	12	2	6	7
31		24		30		6	21		8		14	16
MEAN	16	23	21	18	17	24	19	23	26	18	15	16

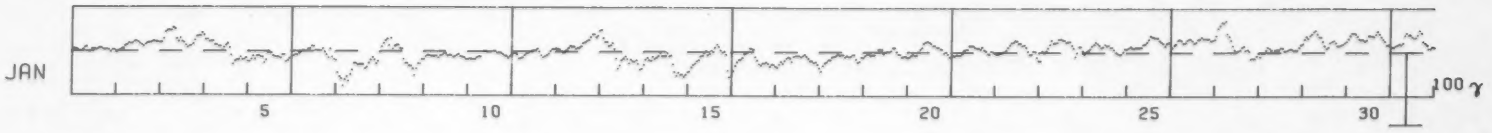
HOURLY EQUATORIAL Dst VALUES (PROVISIONAL)

JANUARY 1975

NASA/GODDARD SPACE FLIGHT CENTER

(Time-UT)

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	3	2	1	0	-1	2	5	6	-1	-1	3	3	1	3	5	4	2	2	2	1	-1	2	1	-1
2	9	1	3	4	7	9	11	10	11	13	14	12	10	8	6	9	11	12	12	13	13	12	11	11
3	12	17	26	28	29	29	32	30	16	13	18	13	11	8	5	7	8	10	15	20	21	21	25	22
4	15	16	13	13	14	9	5	6	6	0	5	8	10	4	-6	-19	-14	-12	-11	-8	-12	-11	-9	-15
5	-15	-11	-7	-11	-6	-6	-8	-9	-16	-12	-2	-2	-3	-6	-8	-9	-9	-10	-5	-3	-15	-13	-10	-7
6	-6	-5	-6	-3	-1	1	0	0	3	4	7	6	1	0	0	1	3	-1	-5	-9	3	-8	-11	-13
7	-30	-35	-28	-48	-39	-35	-42	-32	-26	-17	-17	-19	-19	-19	-18	-25	-22	-16	-12	-8	-12	-17	-14	-1
8	6	11	15	17	8	18	3	7	9	8	4	3	-11	-16	-17	-20	-20	-24	-33	-24	-17	-16	-11	-12
9	-7	-5	-6	-7	-6	-6	-6	-5	-6	-5	-3	-4	-6	-5	-6	-8	-7	-5	-4	-7	-8	-9	-11	-11
10	-10	-11	-11	-11	-8	-7	-7	0	1	0	-1	0	0	1	0	-2	-1	-2	-4	-6	-7	-9	-7	-5
11	-2	-1	-4	-10	-9	-8	-9	-3	-1	0	1	2	2	4	0	-5	-8	-7	-5	-3	0	3	3	4
12	4	2	0	-2	-1	2	5	8	6	7	4	5	5	7	12	13	15	16	20	24	24	20	22	29
13	30	18	13	13	7	9	12	3	-10	-24	-19	-12	-10	-7	-10	-17	-11	-14	-15	-12	-17	-25	-24	-18
14	-11	-9	-12	-13	-7	-10	-8	-6	-2	-6	-7	-6	-2	-6	-5	-18	-28	-33	-29	-31	-32	-35	-31	-28
15	-27	-21	-18	-16	-12	-11	-6	-5	-2	1	-5	-3	2	0	6	10	7	2	-1	0	-4	-26	-35	-35
16	-26	-19	-14	-11	-11	-3	-3	-2	0	5	4	3	-7	-11	-17	-19	-16	-16	-14	-16	-20	-17	-18	-20
17	-22	-17	-13	-16	-12	-9	-7	-5	-13	-6	-5	-5	-5	-7	-5	-3	-6	-9	-12	-13	-15	-14	-17	-22
18	-20	-19	-15	-14	-11	-11	-7	-6	-5	-3	-5	-4	-4	-7	-5	-7	-6	-4	-5	-10	-14	-13	-7	-8
19	-5	-3	-3	-5	-4	-4	0	4	4	3	-2	0	1	0	2	6	6	0	-3	-4	-7	-6	-7	-8
20	-7	-5	-3	-5	-4	0	4	6	12	14	15	13	11	9	8	6	6	4	3	-1	0	-3	-7	-7
21	-5	-5	-4	-5	-5	-2	3	4	4	5	9	8	6	5	5	4	7	3	1	-2	-3	1	0	-2
22	-3	-2	-1	0	1	3	7	10	13	14	16	15	12	11	9	10	7	1	-3	-3	1	1	-7	-12
23	-11	2	0	2	6	11	17	13	13	14	18	19	17	16	14	15	15	10	6	-6	0	8	8	2
24	-2	1	3	5	9	11	14	12	10	7	8	11	9	10	7	7	4	0	-2	-3	-2	1	5	5
25	6	8	6	5	7	6	6	7	11	12	14	18	23	21	20	20	19	16	14	12	9	13	14	11
26	7	10	12	17	18	15	13	13	17	15	19	16	13	14	15	19	21	19	19	18	18	16	16	18
27	23	33	37	41	40	43	25	22	17	9	3	1	1	3	7	9	2	4	1	-9	-9	-9	-5	-1
28	-6	-1	-1	3	7	5	3	0	3	4	4	6	6	2	1	3	5	4	2	2	2	7	10	12
29	18	22	19	23	25	28	30	25	21	20	15	8	5	7	13	15	16	13	9	9	10	11	13	15
30	19	23	26	26	25	22	16	17	18	15	17	23	22	22	21	25	29	25	21	18	15	10	10	9
31	7	7	9	10	12	15	13	23	26	24	24	21	19	20	24	30	27	14	12	10	4	5	7	6



PRINCIPAL MAGNETIC STORMS

JANUARY 1975

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
CO	64.6N	3	08--	..	..	..	..	05(4,5)	7	234	1640	1150	05	23
NE	55.1N	3	19--	..	..	..	..	04(3,4,5,6)	5	27	94	70	05	24
HY	7.6N	3	1300	..	..	..	..	04(6)	6	5	128	24	05	23
GU	4.0N	3	2204	..	..	..	..	04(4)	4	0	100	10	04	20
HU	0.6S	3	1535	..	..	..	..	04(6,7)	5	12	222	47	05	22
KG	56.5S	3	06--	..	..	..	..	04(6)	6	--	--	--	05	23
SI	60.0N	4	0727	SC	-14.7	+36.3	+27.2	04(5)	6	40	380	290	05	23
WI	54.2N	4	10--	..	..	..	..	04(6) 05(7,8)	6	35	195	60	05	23
HR	33.7S	4	05--	..	..	..	..	04(6)	5	28	95	93	05	03
GN	43.2S	4	06--	..	..	..	..	07(1) 08(4,5,7)	6	19	130	150	09	02
CO	64.6N	6	10--	..	..	..	..	06(4,5,7,8) 07(1,3,5)	6	204	1510	760	07	13
SI	60.0N	6	11--	..	..	..	..	07(3)	-	--	650	470	07	13
NE	55.1N	6	1957	SC*	4	9	3	07(1)	7	63	130	166	07	20
WI	54.2N	6	15--	..	..	..	..	06(8) 07(1)	7	47	275	85	07	09
FR	49.6N	6	13--	..	..	..	..	07(1)	6	33	134	39	07	21
BD	48.9N	6	1958	SC*	- 1	24	- 8	07(7)	7	47	133	52	07	18
TU	40.4N	6	1958	SC	- 1	+28	+ 2	06(8) 07(1)	6	28	195	30	09	01
SJ	29.9N	6	1430	..	..	..	..	07(1)	6	8	76	40	07	16
AL	9.5N	6	1956	SC	- 0.7	29	- 9	06(8)	5	7	116	47	07	16
HY	7.6N	6	1000	..	..	..	..	07(1)	5	7	115	14	07	21
HY	7.6N	6	1957	SI	- 0.5	+31	- 3	--	-	--	--	--	--	--
GU	4.0N	6	1957	SC	--	20	-10	07(1)	6	--	--	--	07	17
AN	1.5N	6	1956	SC	- 1.3	38	21	--	-	7	123	78	07	16
HU	0.6S	6	1100	..	..	..	..	06(7,8)	5	11	262	48	08	23
TV	1.1S	6	1956	SC	0.3	30	38	--	-	5	111	98	07	16
HR	33.7S	6	1957	SC	+ 2	+36	+21	06(8) 07(1) 08(7)	6	33	138	115	08	22
CO	64.6N	7	2321	SC*	+ 9	+45	+14	08(4)	8	193	2170	980	09	02
SI	60.0N	7	2322	SC*	+ 4.6*	+ 6.8*	- 2.9*	08(3)	-	--	--	370	09	01
NE	55.1N	7	2321	SC*	1	13	3	08(3)	6	47	198	121	09	02
WI	54.2N	7	2322	SC*	- 2 *	+20	0	08(7)	7	37	225	50	08	22
FR	49.6N	7	2322	SC*	+ 3	+17	- 5	08(3)	5	17	125	29	08	22
BD	48.9N	7	2323	SC*	- 2	14	- 3	08(3)	6	26	129	32	09	15
SJ	29.9N	7	2322	SC	--	--	--	--	4	--	--	--	08	21
AL	9.5N	7	2322	SC	- 0.5	11	- 5	07(1)	6	5	135	29	08	22
HY	7.6N	7	0024	SI	- 1.7	+58	- 1	--	-	--	--	--	--	--
HY	7.6N	7	2321	SC	- 0.3	+12	- 1	08(3,4,6,7)	5	5	144	19	08	22
GU	4.0N	7	2322	SC	--	20	-05	08(1)	5	0	120	30	08	23
AN	1.5N	7	2322	SC	- 0.7	13	8	--	-	6	166	53	08	22
TV	1.1S	7	2322	SC	0.1	11	12	--	-	4	185	123	08	22
KG	56.5S	7	2323	SC	--	--	--	08(7)	6	--	--	--	08	22
HY	7.6N	8	0236	SI	- 1.0	+34	- 3	--	-	--	--	--	--	--
CO	64.6N	12	17--	..	..	..	..	14(5)	7	170	1670	820	15	03
NE	55.1N	12	1951	..	..	..	..	14(3,5)	5	28	162	128	15	06
HY	7.6N	12	1700	..	..	..	..	14(7)	5	5	106	25	14	23
GU	4.0N	12	1843	..	..	..	..	13(1)	5	0	130	30	15	18
HU	0.6S	12	1715	..	..	..	..	13(6)	6	8	231	57	14	23
HR	33.7S	12	19--	..	..	..	..	13(3,6,7,8)	5	20	112	70	15	00
GN	43.2S	12	17--	..	..	..	..	13(1,5) 14(1,5,6) 15(8) 16(5,6) 17(6)	5	22	90	100	19	17
KG	56.5S	12	17--	..	..	..	..	14(7)	6	--	--	--	18	18
WI	54.2N	13	01--	..	..	..	..	13(7) 14(7)	6	35	165	50	15	02
BD	48.9N	13	01--	..	..	..	..	13(2)	5	24	120	37	15	15
HY	7.6N	15	1430	..	..	..	..	16(6)	5	4	93	30	18	16
NE	55.1N	16	10--	..	..	..	..	17(1,3,4) 18(5)	5	32	99	89	18	18
BD	48.9N	16	14--	..	..	..	..	17(2)	5	24	90	37	19	14
HY	7.6N	27	0300	..	..	..	..	27(3)	4	3	115	11	27	21
CO	64.6N	31	10--	..	..	..	..	01(4)	7	198	1370	860	02	16
NE	55.1N	31	1105	..	..	..	..	31(6) 1(3,4)	5	33	112	160	02	18
BD	48.9N	31	11--	..	..	..	..	31(6)	5	22	103	46	03	07
HY	7.6N	31	0700	..	..	..	..	31(6,7) 01(5)	5	5	120	19	02	23
GN	43.2S	31	10..	..	..	..	..	31(6,7) 01(5)	5	19	80	100	02	16
KG	56.5S	31	09--	..	..	..	..	01(5)	5	--	--	--	02	22

Reports were received from the following observatories:

College Newport Fredericksburg Tucson Honolulu Hyderabad Annamalainagar Trivandrum Gnangara
Sitka Witteveen Boulder San Juan Alibag Guam Huancayo Hermanus Port-aux-Francais

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

JANUARY 1975

PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS (by Dr. A. Romana)

The meaning of the station symbols is given in the IAGA-Bulletins nr. 12 and 32. Times of ssc and si are mean values. If given by ten or more stations they are underlined.

Sudden commencements followed by a magnetic storm or a period of storminess (ssc)

06 1957 A: IK HU; B: SZ PP DU; C: KA (si: A: LG; B: EB SS)

07 2322 A: OT TL FR; B: SI WN FU IK EB HU PP CZ KG; C: NI DB KA SS DU

Sudden impulses found in the magnetograms (si)

07 0027 A: SS HU; B: EB CI PP; C: KA (bps: B: WN)

Solar-flare effects (sfe)

Effects confirmed by ionospheric or solar observations are underlined.

29 1251 - 1327 NI

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

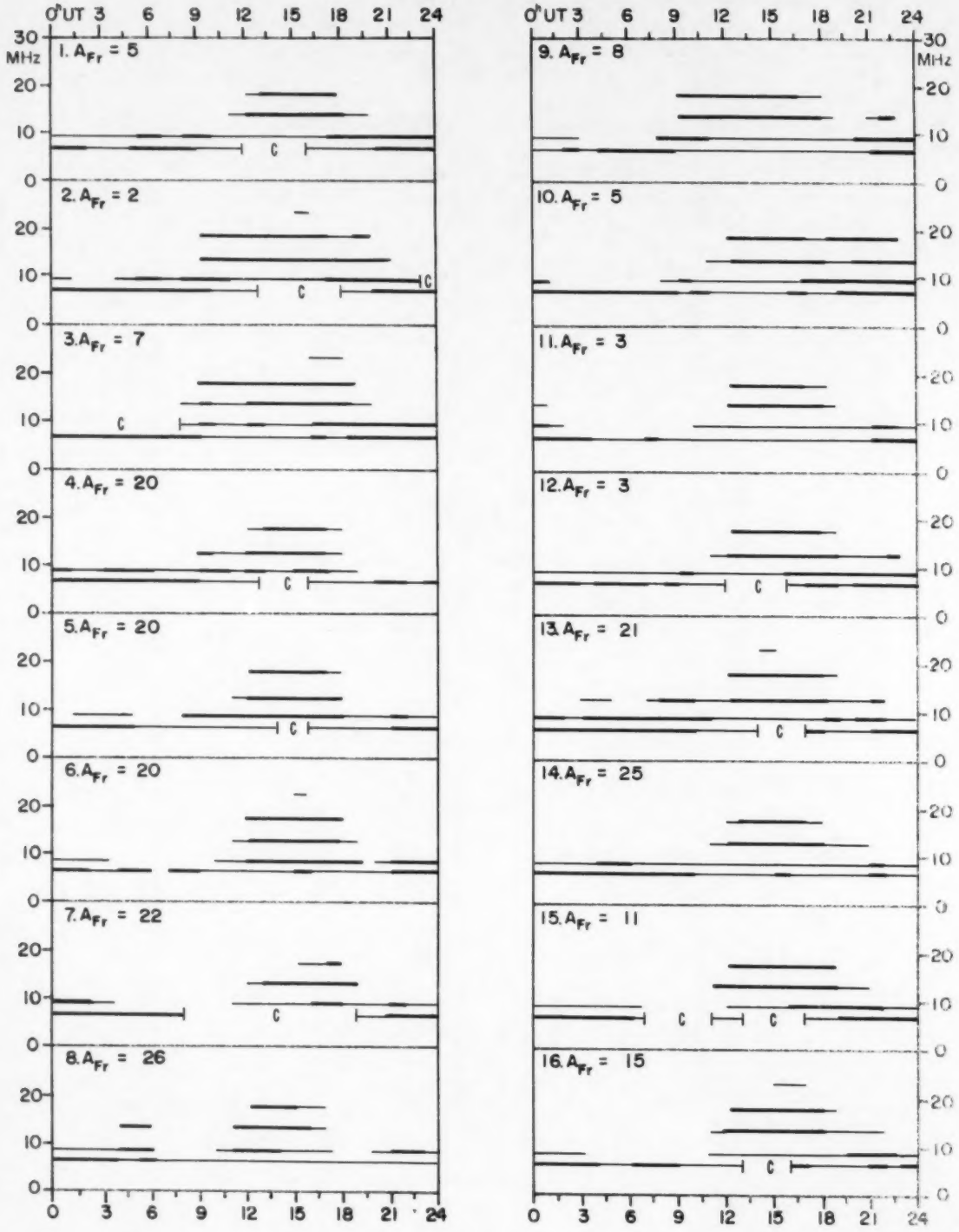
JANUARY 1975

North Atlantic

JAN 1975	WHOLE DAY INDICES NORTH ATLANTIC	ADVANCE FORECASTS (JC-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC								GEOMAGNETIC INDICES		
			6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF				K_{FR}		A_{FR}
			00 TO 06	06 TO 12	12 TO 18	18 TO 24	02	08	14	20	HALF DAY (1)	HALF DAY (2)	OBSERVED
01	6-	6	6o	5o	5+	6o	5	5	5	5	2	1	5
02	6-	6	6-	6-	6o	6-	6	6	6	6	1	1	2
03	6-	6	6-	4+	7o	6+	5	6	6	6	2	2	7
04	6-	6	6o	4-	7-	6-	5	5	5	4	3	(4)	20
05	5o	5	5o	3+	5o	6+	4	4	5	5	3	(4)	20
06	5+	5	6o	4-	6-	5o	5	5	5	5	2	(4)	20
07	4+	5	4+	3-	5o	5+	5	4	4	5	(4)	2	22
08	4+	5	5o	4-	5+	4o	4	4	4	4	(4)	(4)	26
09	5o	4	4+	5o	6-	5+	4	4	5	5	3	1	8
10	6-	5	5o	5o	6+	6-	5	6	5	5	2	0	5
11	6-	5	5+	6-	6+	5+	5	5	6	5	1	1	3
12	6-	5	5+	6-	6+	5+	5	5	5	5	1	1	3
13	5+	5	5o	5o	6+	5o	5	5	5	5	(4)	(4)	21
14	5+	5	5+	4+	6o	5o	4	4	4	4	(4)	(4)	25
15	5+	5	5-	4o	6o	6o	4	4	5	5	3	3	11
16	5o	5	6-	4-	5o	5o	4	5	5	5	3	3	15
17	5-	5	5o	4-	5+	5+	5	5	4	5	(5)	3	28
18	5+	5	5+	6-	5o	5+	5	5	5	5	(4)	3	19
19	5o	6	5-	5-	6-	5+	5	5	5	5	3	1	8
20	5o	6	5o	4+	6-	5o	5	5	5	6	2	2	8
21	6-	6	5-	6-	6o	6-	5	5	5	6	1	1	4
22	5+	5	5o	5-	6-	6-	6	5	6	6	1	2	4
23	6-	6	5+	5+	6+	6-	6	5	5	6	2	3	10
24	6o	6	6-	6o	6+	6o	6	5	5	6	3	1	10
25	6-	6	6-	6o	6+	5+	6	6	6	6	1	2	4
26	6-	6	5+	6-	6+	6-	6	6	5	5	2	1	4
27	6-	6	6-	5o	6-	6o	6	6	5	5	3	3	12
28	6-	6	6-	5+	6o	5+	5	5	5	6	3	1	9
29	5+	6	5+	4+	6-	5+	5	5	5	6	2	1	6
30	5+	6	5+	5-	5+	6-	5	5	5	6	2	2	7
31	5+	6	6-	5o	6-	5+	5	5	5	5	2	3	11

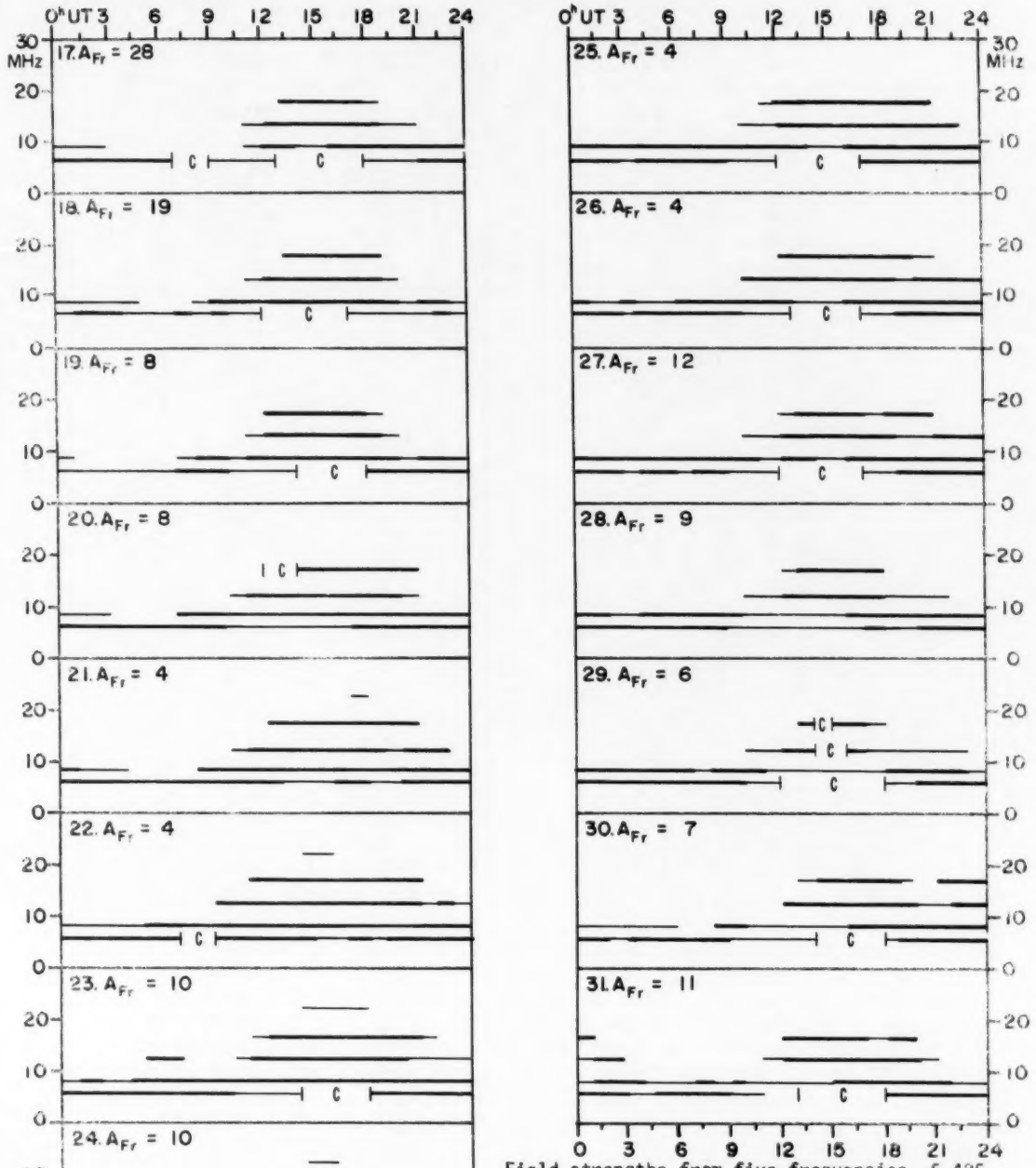
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

JANUARY 1975



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

JANUARY 1975



Field strengths from five frequencies, 6.425, 8.542, 12.813, 17.084 and 22.378 MHz, observed on a Lüchow.- Halifax circuit are represented above. Heavy solid lines represent field strengths ≥-12 dB above 1 μv/m (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 μv/m and -40 dB above 1 μv/m are represented by the fine line. **Adopted from Observations by Deutsche Bundespost**

RADIO PROPAGATION QUALITY INDICES

JANUARY 1975

Quality Indices calculated for reception at Lüchow

	TOKYO	HALIFAX	MAURITIUS	CANBERRA	BRACKNELL
1	4.7	5.6	6.9	3.7	11.9
2	4.5	6.6	6.5	3.4	12.2
3	5.5	7.3	6.3	3.7	12.6
4	5.0	5.0	5.5	3.6	9.6
5	4.4	4.7	6.0	3.2	10.1
6	6.2	5.2	5.6	3.7	12.1
7	5.7	4.6	4.4	2.7	10.6
8	5.4	3.3	5.4	3.2	11.1
9	5.3	5.4	5.7	3.2	11.7
10	4.8	6.1	6.3	3.5	12.2
11	6.0	4.5	6.1	3.7	11.6
12	5.3	5.8	6.5	3.5	12.8
13	5.9	6.0	6.3	4.0	11.9
14	5.5	4.6	6.1	3.9	10.6
15	5.0	5.5	5.8	3.5	11.5
16	5.0	4.8	5.2	3.3	11.6
17	4.3	4.7	5.1	3.3	11.6
18	4.4	4.9	5.1	2.9	10.8
19	5.3	6.0	5.7	3.5	11.7
20	6.2	7.0	6.6	3.5	12.4
21	6.4	6.5	6.8	3.8	12.8
22	6.7	7.0	6.5	4.0	12.9
23	6.4	7.2	6.4	3.8	11.9
24	5.7	7.3	6.1	4.0	13.1
25	5.7	6.4	5.6	3.7	12.9
26	6.2	6.9	5.8	3.6	13.1
27	5.9	6.3	5.6	4.0	12.8
28	5.5	5.5	5.8	3.7	11.5
29	5.4	5.2	6.2	3.7	10.8
30	5.4	6.0	6.2	4.3	11.5
31	5.2	5.8	6.0	3.5	11.4

The method of calculation of the radio propagation indices changed in July 1974. An absolute quality figure is calculated for a 24-hour period from Tokyo, Halifax, Mauritius (Africa) and Canberra. The figure 0.0 corresponds to a median field strength of -30 dB above 1μV/m (converted into 1 kW and referred to an omnidirectional antenna). The figures 1 to 10 are in steps of 5 dB with the figure 10.0 corresponding to a median field strength of +20 dB above 1μV/m. The field strength of the frequency with the highest value for each hour is used in place of a mean of all recorded frequencies. This is done on the assumption that the optimum frequency would be used for communication.

USCOMM-NOAA-ASHEVILLE--3-31-75--950

AMERICAN REVOLUTION BICENTENNIAL
1776-1976

March 1975 Number 367-Part II

Solar-Geophysical Data comprehensive reports

Data for September 1974–August 1974 & Miscellanea
Explanation of Data Reports Issued as Number 366 (Supplement) February 1975

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Solar - Geophysical Data

NO. 367 MARCH 1975

Part II (Comprehensive Reports)

DATA FOR
SEPTEMBER 1974
AUGUST 1974
& MISCELLANEA

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

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To standardize referencing these reports in the open literature, the following format is recommended:

Solar-Geophysical Data, 366 Part I (or Part II), pages, February 1975, U.S. Department of Commerce, (Boulder, Colorado, U.S.A. 80302)

SOLAR - GEOPHYSICAL DATA

No. 367

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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F.1g	Cosmic Ray Neutron Counts (Sulphur Mountain)	362A112	363A116	364A111	366B 32	366A101	367A104	
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Note: A = Part I, B = Part II.
362A 32 listed under Aug shows that data for August 1974 were contained in *Solar-Geophysical Data* Number 362 - Part I beginning on page 32.

SGD 367 Part II (Comprehensive)

SEPTEMBER 1974 DATA

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	MAX. INT. %	
	01	2039	2049	NO FLARE PATROL															
	01	2135	2150	NO FLARE PATROL															
	01	2157	2230	NO FLARE PATROL															
	01	2246	2322	NO FLARE PATROL															
	01	2337	0135	NO FLARE PATROL															
	02	0140	0210	NO FLARE PATROL															
	02	1630	1540	NO FLARE PATROL															
	02	1740	1744	NO FLARE PATROL															
	02	1748	1805	NO FLARE PATROL															
	02	1808	1815	NO FLARE PATROL															
	02	1840	1854	NO FLARE PATROL															
	02	1942	1950	NO FLARE PATROL															
	02	2002	2015	NO FLARE PATROL															
	02	2027	2100	NO FLARE PATROL															
	02	2106	2335	NO FLARE PATROL															
	02	2337	0137	NO FLARE PATROL															
	03	0149	0154	NO FLARE PATROL															
	03	2047	2048	NO FLARE PATROL															
	03	2104	2119	NO FLARE PATROL															
	03	2143	2145	NO FLARE PATROL															
	03	2202	2208	NO FLARE PATROL															
	03	2245	2252	NO FLARE PATROL															
	04	0105	0119	NO FLARE PATROL															
	04	0124	0147	NO FLARE PATROL															
	05	0100	0119	NO FLARE PATROL															
	05	0120	0125	NO FLARE PATROL															
	05	0152	0155	NO FLARE PATROL															
	05	0318	0332	NO FLARE PATROL															
	05	0337	0343	NO FLARE PATROL															
	05	0354	0400	NO FLARE PATROL															
GRP61046	05	1314	1405	1333	N07	E20	.339	13205	7.1	51	--F				1.45				4 4 4 8
MCMA	05	1312	1410	1331	N07	E19	.323	13205	7.0	58	-N		C	1331	1.03	1.10			E
ATHN	05	1316	1355	1332	N06	E19	.324	13205	7.0	39	-F	1		1332	1.52	1.46			
TEHR	05	1317E	13360	1330	N07	E20	.339	13205	7.1	190	-F	3	C		.74				F
LOCA	05	1340E	1410	1340	N08	E20	.339	13205	7.1	300	1N		V	1340	2.52	2.70			
	05	1958	2004	NO FLARE PATROL															
	05	2007	2032	NO FLARE PATROL															
	05	2145	2159	NO FLARE PATROL															
	05	2205	2220	NO FLARE PATROL															
GRP61047	05	2326	2357	2331	S14	E54	.845	13209	10.0	31	-F				1.06				2 2 2 2
BOU_	05	2325	2358	2332	S14	E53	.836	13209	10.0	32	1F		C	2332	1.29	2.16			
MANI	05	2328E	2355	2330	S14	E54	.845	13209	10.0	270	-N	1		2330	.83	1.45			F
	06	0117	0135	NO FLARE PATROL															

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OBSERVATORY	OBSERVED UT				LOCATION						DURATION	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY		MIN.				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	06	0145	0200	NO FLARE PATROL																
	06	0440	0446	NO FLARE PATROL																
	06	0513	0515	NO FLARE PATROL																
	07	0102	0108	NO FLARE PATROL																
	07	0132	0145	NO FLARE PATROL																
049 MANI	07	0209E	0230D	0213	S14	E40	.707	13209	10.1		210	--N	2		0213	.41	.58			F 1
050 MANI	07	0209E	0230	0224	S14	E40	.707	13209	10.1		210	--N			0224	.62	.87			1
	07	0215	0224	NO FLARE PATROL																
051 MANI	07	0224E	0230D	0226	S13	W35	.646	13210	4.5		60	--F	2		0226	.41	.54			1
	07	0230	0250	NO FLARE PATROL																
052 MANI	07	0251E	0300D	0257	S14	E40	.707	13209	10.1		90	--F	2		0257	.31	.44			2
	07	0405	0500	NO FLARE PATROL																
053 ATHN	07	0505E	0514	0506	S15	E35	.659	13209	9.8		90	--F	1		0506	.68	.76			2
054 ATHN	07	0853	0922	0857	S16	E34	.655	13209	9.9		29	--F	1		0857	.68	.76			2
GRP61057	07	1251	1309	1255	S15	E33	.637	13209	10.0		18	--F				.54				2 2 2 5
RAMY	07	1251	1319	1255	S14	E33	.630	13209	10.0		28	-F	4	C		.56				DE
ATHN	07	1254E	1258	1255	S16	E33	.644	13209	10.0		40	-F	1		1255	.52	.55			
GRP61058	07	1531	1554	1536	S15	E32	.626	13209	10.0		23	--F				.88				4 4 3 6
BOUL	07	1528	1602	1535	S15	E31	.615	13209	10.0		34	-F		C	1535	1.07	1.26			
RAMY	07	1531	1553	1536	S13	E32	.611	13209	10.0		22	-N	4	C		1.11				DE H
MCMA	07	1533	1542D		S17	E32	.641	13209	10.0		90	-F		P	1534	.46	.60			E
HUAY	07	1536E	1546		S15	E32	.626	13209	10.1		100	-F	1	P						C
3 STATIONS REPORTING GROUP 61059. 0 STATIONS OBSERVING AND NOT REPORTING.																				
GRP61059	07	1900	1929	1904	S14	E30	.596	13209	10.1		29	-N				1.54				3 3 3 3
BOUL	07	1900	1933	1903	S14	E28	.573	13209	9.9		33	1N		C	1903	1.93	2.18			
RAMY	07	1900	1925	1902	S14	E30	.596	13209	10.0		25	-B	4	C		1.39				DE
PALE	07	1901	1912D	1902	S15	E29	.593	13209	10.0		11D	-N	3	C		1.13				F U
RAMY	07	1905E	1925	1908	S15	E32	.626	13209	10.2		20D	-B	4	C		1.55				DE
PALE	07	1909E	1914D	1909U	S15	E31	.615	13209	10.1		5D	-N	3	C		1.03				F U
059 RAMY	07	1905E	1925	1908	S15	E42	.734	13209	10.9		20D	*-B	4	C		1.55				DE 4
GRP61060	07	2258	2342	2307	S15	E19	.487	13209	9.4		44	-N				1.77				2 2 2 2
BOUL	07	2258	2356	2308	S15	E19	.487	13209	9.4		58	1N		C	2308	2.25	2.38			
PALE	07	2253	2328	2305	S15	E18	.477	13209	9.3		30	-N	3	C		1.29				
	08	0046	0058	NO FLARE PATROL																
	08	0321	0326	NO FLARE PATROL																
GRP61061	08	1539	1550	1543	S13	E17	.444	13209	9.9		11	--F				.39				2 2 2 3
MCMA	08	1539	1548	1542	S13	E17	.444	13209	9.9		9	-F		2	1542	.41	.50			EH
RAMY	08	1544E	1552	1544U	S13	E17	.444	13209	9.9		80	-F	4	C		.37				DE H
062 RAMY	08	1617E	1523	1619	N13	E90	1.000	13225	15.4		60	-N	4	C						2
063 PALE	08	2117	2124	2119	N07	E85	.995	13225	15.3		7	--F	3	2		.62				DE 1
GRP61066	09	1049	1059	1052	N12	E78	.974	13225	15.3		10	--F				.32				3 2 2 10
RAMY	09	1047	1100	1049U	N14	E76	.965	13225	15.1		13	-F	3	C		.46				DE
TEHR	09	1051	1058	1054	N10	E80	.981	13225	15.5		7	-N	3	C		.17				DE
UPIC	09	1100	1120U	1105U	N10	E79	.978	13225	15.4		20D	1F		P	1105	.63				
GRP61067	09	1242	1256	1248	N08	W33	.540	13205	7.1		14	--F				.35				2 2 2 5
RAMY	09	1242	1258	1247	N07	W36	.584	13205	6.9		16	-F	4	C		.37				DE
TEHR	09	1244E	1253	1249	N09	W30	.496	13205	7.3		90	-F	3	V		.33				DE R
068 RAMY	09	1611	1519D	1618U	N04	W37	.601	13205	6.9		80	--F	3	C		.31				DE 3
GRP61069	09	1658	1706	1701	N06	E78	.976	13225	15.6		8	--N				.29				3 3 2 5
RAMY	09	1658E	1706D	1700U	N08	E79	.979	13225	15.6		80	-F	2	C		.37				
MCMA	09	1658	1705	1701	N05	E78	.976	13225	15.6		7	-N		C	1701					D
HUAY	09	1702E	1702D		N06	E77	.972	13225	15.5			-N	1	P	1702	.21				D

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP61073	09	1718	1751	1722	N08	E77	.971	13225	15.5	33	-B				.50				4 4 3 4
PALE	09	1717	17420	1720	N07	E76	.967	13225	15.4	250	-B	3	C		.36				U
BOUL	09	1717	18000	1721	N09	E75	.962	13225	15.3	430	-N		C	1721	.64	1.95			
PALE	09	1718E	1743	1720	N09	E79	.978	13225	15.6	250	-B	3	C		.36				U
MCMA	09	1720	1810		N05	E78	.976	13225	15.6	50	1N		C	1723					E
RAMY	09	1723E	17250	1725U	N08	E79	.979	13225	15.6	20	-B	1	V		.50				DE
BOUL	09	1731	1739	1734	N13	E73	.950	13225	15.2	8	-F		C	1734	.32	.92			
071 HUAY	09	1843	1847	1845	N06	E77	.972	13225	15.6	4	--F	1	C						O 2
	09	1855	1905	NO FLARE PATROL															
	09	1909	1918	NO FLARE PATROL															
	09	1922	1928	NO FLARE PATROL															
072 PALE	09	2023E	20240	2024U	N05	E74	.959	13225	15.4	10	-B	1	C		.36				1
	09	2024	2101	NO FLARE PATROL															
	09	2120	2131	NO FLARE PATROL															
073 PALE	09	2131E	21320	2131U	N07	E75	.963	13225	15.5	10	--F	2	C		.41				DE 1
	09	2132	2319	NO FLARE PATROL															
	09	2324	0019	NO FLARE PATROL															
	10	0027	0131	NO FLARE PATROL															
074 VORO	10	0224	0232	0225	N13	E74	.956	13225	15.6	8	1N		C	0225	1.29	4.01		67	EJL 2
075 VORO	10	0243	0304	0255	N11	E72	.946	13225	15.5	15	1F		C	0255	1.57	4.50		52	EHJL 4
GRP61081	10	1312	1344	1320	N08	E64	.894	13225	15.4	32	-N				1.12				7 7 7 8
MONT	10	1236E	1406	1323	N08	E63	.886	13225	15.3	900	-N		C	1323	2.27				EH
MEUD	10	1258	1303	1259	N07	E65	.902	13225	15.4	5	-F		C	1259	.31	.70			
KIEV	10	1310	13240	1320	N05	E63	.888	13225	15.3	140	1N		R	1320	1.55			60	DI
BOUL	10	1310	1347	1321	N09	E62	.877	13225	15.2	37	-N		C	1321	.86	1.84			
HUAY	10	1314	1334	1318	N06	E65	.903	13225	15.4	20	-N	1	C	1318	.52	1.13			E
MEUD	10	1314	1335	1318	N07	E63	.887	13225	15.3	21	1N		C	1318	1.03	2.20			E
TEHR	10	1317E	1421	1319U	N10	E64	.893	13225	15.4	640	-N	2	C		.64				F
ATHN	10	1319E	1335	1322	N08	E65	.902	13225	15.4	170	-N	2	C		.99				U
GRP61085	10	1514	1525	1519	N09	E58	.842	13225	15.0	11	-N				.71				3 3 3 4
MEUD	10	1513	1520	1517	N09	E58	.842	13225	15.0	7	-N		C	1517	.62	1.10			E
HUAN	10	1514	1523	1520	N10	E58	.842	13225	15.0	9	-N	1	C	1520	.67	1.27			E
MCMA	10	1520E	15320		N08	E57	.833	13225	14.9	120	-N		C	1520	.83	1.70			EHL
	10	1619	1637	NO FLARE PATROL															
086 PALE	10	1646E	1654	1647	N09	W51	.771	13205	6.9	80	--F	3	C		.26				DE 2
GRP61087	10	1752	1810	1756	N07	E58	.843	13225	15.1	18	--F				.47				2 2 2 4
MCMA	10	1752	1810	1757	N08	E56	.824	13225	14.9	18	-N		C	1757	.52	.90			E
PALE	10	1754E	17580	1755U	N08	E57	.833	13225	15.0	40	-F	2	V		.41				DE
MCMA	10	1805E	19100		N05	E61	.872	13225	15.3	50	-N		C	1805	.31	.60			E
	10	2031	2041	NO FLARE PATROL															
GRP61093	10	2121	2300	(2146)	N10	E61	.869	13225	15.5	99	2B				4.56				4 2 2 4
PALE	10	2120E	22430	2137	N10	E61	.869	13225	15.5	830	1B	3	V		2.68				DE U
MCMA	10	2120E	21200		N05	E59	.854	13225	15.3		-F		R	2120	.41	.80			E
BOUL	10	2124	22520	2155	N09	E61	.869	13225	15.5	880	3N		C	2155	6.43	13.30			
MANI	10	2200E	23000	2200U	N10	E60	.860	13225	15.4	600	2B	1		2200	4.64	8.46			ZU
	10	2225	2226	NO FLARE PATROL															
61090	10	2256	2339	2324	N09	E60	.860	13225	15.5	43	*-B				1.14				2 2 2 2
PALE	10	2255E	23420	2325	N05	E60	.863	13225	15.5	460	-B	3	V		1.24				DE
MANI	10	2320E	2335	2322	N12	E59	.850	13225	15.4	150	-N	1		2322	1.03	1.89			F
091 MANI	11	0015E	0030	0019U	N05	W58	.845	13205	6.7	150	--F	1		0019	.31	.54			F 2
	11	0121	0125	NO FLARE PATROL															
092 MANI	11	0142E	01520	0145	N11	E59	.813	13225	15.2	100	-N	1		0145	1.03	1.72			F 1
	11	0152	0158	NO FLARE PATROL															

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	NOAA PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	MAX. INT. %	
093 PALE	11	0239E	0243D	0242	S14	E59	.885	13224	15.5	4D	-N	2	V		.52				F 3
	11	0250	0251	NO FLARE PATROL															
	11	0405	0408	NO FLARE PATROL															
	11	0424	0425	NO FLARE PATROL															
GRP61095	11	0633	0641	0636	S13	E53	.833	13224	15.2	8	--F				.55				3 3 3 5
ATHN	11	0632E	0643	0635U	S13	E54	.842	13224	15.3	8D	-F	2	C		.33				DE
MANI	11	0634	0642	0638	S13	E52	.824	13224	15.2	8	-F	2		0638	.41	.70			
ABST	11	0634	0642	0636	S14	E54	.845	13224	15.3	8	-F		P	0636	.90	1.60		55	DJ
GRP61104	11	1002	1013	1005	N09	E48	.738	13225	15.0	11	1N				1.99				5 5 5 7
MONT	11	0959	1007	1004	N09	E48	.738	13225	15.0	8	-N		C	1004	.72				D
ATHN	11	1002E	1008	1004U	N10	E47	.726	13225	14.9	6D	-F	2	C		.50				DE H
KHAR	11	1003E	1015D	1008	N09	E48	.738	13225	15.0	12D	1N		C	1008	2.01	3.10			T
MEND	11	1003E	1014		N08	E47	.726	13225	14.9	11D	2N		P		6.19	9.00			
MEUD	11	1003	1014	1004	N10	E48	.737	13225	15.0	11	-N		C	1004	.52	.70			E
MEUD	11	1003	1014	1011	N10	E48	.737	13225	15.0	11	-N		C	1004	.52	.70			E
ATHN	11	1010	1014	1012	N10	E47	.726	13225	14.9	4	-F	2	C		.17				DE H
ATHN	11	1010	1014	1012	N10	E47	.726	13225	14.9	4	-F	1		1012	.17	.20			
110 PALE	11	2209E	2236	2224U	N11	E43	.677	13225	15.1	27D	--F	3	C		.36				DE 1
	11	2249	2255	NO FLARE PATROL															
111 PALE	11	2255E	2307	2258	N11	E43	.677	13225	15.2	12D	--F	3	C		.52				DE 1
	11	2311	2321	NO FLARE PATROL															
	11	2340	2343	NO FLARE PATROL															
GRP61113	12	0627	0641	0633	S12	E43	.730	13224	15.5	14	--N				.62				3 3 3 6
JPIC	12	0625	0640U	0630	S12	E42	.719	13224	15.4	15D	-N		P	0630	1.05				
MANI	12	0625	0644	0634	S12	E43	.730	13224	15.5	19	-N	2		0634	.41	.62			
TEHR	12	0630	0639	0634	S12	E44	.741	13224	15.6	9	-N	4	C		.41				F
GRP61115	12	0717	0736	0724	N12	E38	.612	13225	15.2	19	-N				.97				4 3 3 6
MANI	12	0715	0727D	0722	N12	E37	.598	13225	15.1	12D	-N	2		0722	1.03	1.29			F
MONT	12	0717	0729	0724	N11	E38	.611	13225	15.2	12	-N		C	0724	1.13				E
TEHR	12	0720	0743	0725	N12	E38	.612	13225	15.2	23	-F	4	C		.74				F
MJR3	12	0730	0740	0735	N10	E36	.583	13225	15.0	10	1N						2.08		E
GRP61117	12	0756	0813	0801	S15	W65	.928	13204	7.5	17	-N				.91				3 3 3 8
TEHR	12	0754	0807	0800	S17	W64	.925	13204	7.5	13	-F	4	C		.66				F
ABST	12	0757	0822D	0801	S12	W68	.941	13204	7.2	25D	-N		P	0801	1.18	1.50			DG
ARCE	12	0800E	0810D		S15	W63	.915	13204	7.6	10D	-N		P	0800	.88				B
GRP61122	12	1242	1256	1244	N07	E37	.598	13225	15.3	14	1N				2.32				4 4 3 9
RAMY	12	1240	1257D	1243U	N07	E37	.598	13225	15.3	17D	-N	4	C		.93				U
MEUD	12	1241	1250	1243	N07	E36	.584	13225	15.2	9	-F		C	1243	.93	1.10			E
KHAR	12	1243E	1305D	1244	N07	E37	.598	13225	15.3	22D	2N		C	1245	5.10	6.50			T
MJR3	12	1244	1252	1246	N07	E39	.625	13225	15.5	8	-N						1.87		D
GRP61123	12	1335	1345	1336	S05	W44	.714	13208	9.3	10	--F				.56				2 2 2 6
ATHN	12	1334	1347	1336U	S05	W43	.702	13208	9.3	13	-F	2	C		.50				F
MEUD	12	1336	1342	1336	S05	W45	.726	13208	9.2	6	-F		C	1336	.62	.80			F
127 PALE	12	1749	1758	1755	S04	W46	.734	13208	9.3	9	--F	3	C		.45				F 1
128 PALE	12	1840	1855	1849	N10	E30	.497	13225	15.0	15	--N	3	C		.55				DE 2
GRP61129	12	1903	1936	1906	N12	E30	.499	13225	15.0	33	--B				.81				2 1 1 2
PALE	12	1903	1936D	1906	N12	E30	.499	13225	15.0	33D	-B	3	C		.81				DE
MCMA	12	1918E	1932D		N10	E30	.497	13225	15.1	14D	-N		P	1918	.41	.50			E
GRP61130	12	1941	2002	1949	N05	E37	.600	13225	15.6	21	--F				.15				2 2 2 3
RAMY	12	1941	2002D	1946	N05	E36	.586	13225	15.5	21D	-F	4	C		.15				DE H
MCMA	12	1948E	2000D	1951	N05	E38	.613	13225	15.7	12D	-N		C	1951	.15	.20			D
131 RAMY	12	2000	2012D	2003	N06	W78	.976	13205	7.0	12D	--F	3	C		.37				DE 3
GRP61132	12	2044	2052	2047	N10	E32	.526	13225	15.3	8	--N				.47				2 2 2 2
PALE	12	2021	2046	2030	N06	E36	.585	13225	15.5	25	-N	3	C		.36				
PALE	12	2044E	2052	2047	N11	E30	.498	13225	15.1	8D	-N	3	C		.57				F
MCMA	12	2046E	2051		N11	E30	.498	13225	15.1	5D	-N		P	2046	.36	.40			DH
133 MCMA	12	2135E	2140	2137	N05	E36	.586	13225	15.6	5D	--F		C	2137	.31	.40			D 2

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	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	NOAA PLAGE REGION	CMP DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	12	2400	0150	NO FLARE PATROL															
134 MANI	13	0212	0227	0214U	S13	E32	.611	13224	15.5	15	--N	2		0214	.31	.38			2
135 TEHR	13	0625	0637	0628	S12	E30	.581	13224	15.5	12	--F	2	C		.66				F 3
GRP61136	13	0635	0537	0635	N10	E28	.467	13225	15.4	2	-N				1.45				1 1 1 3
MANI	13	0635E	0637D	0635U	N13	E30	.501	13225	15.5	20	-F	2		0635	.52	.59			F
MANI	13	0635E	0637D	0635U	N07	E26	.435	13225	15.2	20	-N	2		0635	.93	1.03			EU
GRP61138	13	1028	1051	1040	N12	E21	.362	13225	15.0	23	--F				.21				2 2 1 5
MONT	13	1024	1156	1040	N12	E21	.362	13225	15.0	32	-F		C	1040	.21				
WEND	13	1032	1045		N12	E20	.347	13225	14.9	13	-N								
GRP61140	13	1235	1255	1240	N13	E20	.350	13225	15.0	20	--F				.60				2 2 2 6
RAMY	13	1235E	1247	1238U	N13	E20	.350	13225	15.0	120	-F	3	C		.28				DE
KHAR	13	1240E	1302D	1242	N13	E19	.335	13225	15.0	220	-N		C	1242	.91	1.00			DT
KHAR	13	1248E	1302D	1248	N12	E21	.362	13225	15.1	140	-F		C	1248	1.13	1.20			DT
GRP61141	13	1441	1452	1441	N12	E24	.409	13225	15.4	11	--N				.50				3 3 2 3
RAMY	13	1438	1448	1440U	N12	E22	.378	13225	15.3	10	-N	4	C		.37				DE
LOCA	13	1443	1451	1442	N12	E26	.439	13225	15.6	11	-N		V	1442	.63	.70			
WEND	13	1445	1456		N12	E23	.393	13225	15.3	11	-N								
GRP61142	13	1458	1525	1505	N12	E18	.315	13225	15.0	27	1B				2.14				4 4 4 6
WEND	13	1458	1530	1502	N12	E20	.347	13225	15.1	32	2N		P	1502	6.19	6.60			
UPIC	13	1502E	1519	1503	N12	E18	.315	13225	15.0	17D	-B		P	1503	.85				ITD
HUAN	13	1503E	1505D		N12	E17	.299	13225	14.9	2D	-N	1	P	1503	.67	.70			
MCMA	13	1508E	1526D	1510	N12	E18	.315	13225	15.0	18D	-B		C	1510	.83	.80			EHL
6 STATIONS REPORTING GROUP 61143. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP61143	13	1510	1902	1528	S09	E24	.483	13224	15.4	172	2B				9.17				6 6 6 6
RAMY	13	1458	1531	1500	S12	E19	.453	13224	15.0	33	1B	4	C		3.25				DE
RAMY	13	1505	1758	1526	S13	E24	.519	13224	15.4	173	2B	4	C		8.13				U U
MCMA	13	1510	1814D		S15	E23	.528	13224	15.4	184D	2B		C	1526	6.19	7.00			ILU
UPIC	13	1512	1511D	1525	S15	E25	.549	13224	15.5	59D	2B		P	1525	6.31				UF
WEND	13	1513	1714D	1529	N14	E24	.415	13224	15.4	121D	3B		P	1529	21.66	25.20			
HUAN	13	1526E	1755		S15	E25	.549	13224	15.5	149D	2N	2	P	1533	5.57	6.10			
LOCA	13	1528E	1615D	1532	S13	E23	.508	13224	15.4	47D	2B		V	1532	7.15	8.50			
61143	13	1510	1758	1517	S13	E26	.542	13224	15.6	168	*2B				5.28				2 1 1 5
RAMY	13	1510	1758	1517	S13	E26	.542	13224	15.6	168	2B	3	C		5.28				UDE
PALE	13	1639E	1748D	1659U	S13	E25	.530	13224	15.6	69D	1N	3	C		2.27				UDE
144 HUAN	13	1852	1902	1854	S19	E32	.656	13224	16.2	10	--F	2	C	1854	.21	.27			D 2
	13	2156	2212	NO FLARE PATROL															
	13	2217	0030	NO FLARE PATROL															
145 PALE	14	0204E	0210D	0206	N12	E17	.299	13225	15.4	6D	--F	2	C		.27				2
	14	0234	0245	NO FLARE PATROL															
146 PALE	14	0246	0305	0247	N06	E16	.275	13225	15.3	19	--F	2	C		.27				3
GRP61147	14	0529	0555	0534	N07	E15	.257	13225	15.4	26	-N				1.04				3 3 3 5
MANI	14	0528	0555	0534	N07	E15	.257	13225	15.4	27	-N	2		0534	1.03	1.07			F
TEHR	14	0528	0555	0534	N08	E15	.257	13225	15.4	27	-N	3	C		1.09				F
ATHN	14	0530	0555	0535	N07	E14	.240	13225	15.3	25	-N	2	C		.99				F
GRP61149	14	0643	0700	0647	N12	E13	.236	13225	15.3	17	--N				.47				3 3 3 5
TEHR	14	0642	0659	0644	N12	E14	.252	13225	15.3	17	-N	3	C		.45				F
ATHN	14	0643	0700	0648	N11	E12	.215	13225	15.2	17	-N	2	C		.66				F
MANI	14	0644E	0700	0648U	N13	E13	.243	13225	15.3	16D	-N	2		0648	.31	.32			F
GRP61150	14	0745	0812	0750	N13	E08	.170	13225	14.9	27	--N				.68				4 4 4 5
TEHR	14	0742	0817	0748	N14	E08	.180	13225	14.9	35	-N	3	C		.36				DE
ATHN	14	0745	0801	0750U	N12	E09	.175	13225	15.0	16	-F	3	C		.66				F
ABST	14	0746	0813D	0751	N14	E07	.168	13225	14.8	27D	-N		P	0751	.99	1.00			D
MONT	14	0746	0816	0752	N13	E08	.170	13225	14.9	30	-N		C	0752	.72				
GRP61151	14	0813	0833	0818	N16	E13	.223	13225	15.3	20	--N				.79				5 5 5 7
MONT	14	0812	0829	0817	N07	E13	.223	13225	15.3	17	-N		C	0817	.62				
ATHN	14	0813	0835	0817	N08	E12	.207	13225	15.2	22	-N	2	C		.66				DE
TEHR	14	0813	0835	0817	N08	E13	.223	13225	15.3	22	-N	3	C		1.09				U
ARCE	14	0815E	0835D		N08	E13	.223	13225	15.3	20D	-N		C	0817	.69	.70			T
MERS	14	0820E	0832D	0820E	N07	E12	.206	13225	15.2	12D	-F		P	0823	.89	.90			E

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	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY		MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	MAX. INT. %	
GRP61152	14	0943	0959	0948	N08	E12	.207	13225	15.3		16	--F				.50				4 4 4 5
ATHN	14	0943	0959	0946	N07	E11	.189	13225	15.2		16	-N	1	C		.33				DE
TEHR	14	0943	0958	0948	N08	E13	.223	13225	15.4		15	-F	2	C		.83				U
MONT	14	0944	1000	0949	N07	E10	.172	13225	15.2		16	-F		C	0949	.21				
ARCE	14	0950E	10000		N08	E12	.207	13225	15.3		10D	-F		C	0955	.63	.60			
GRP61153	14	0948	1009	0953	S10	E14	.377	13224	15.5		21	--F				.21				2 1 1 5
MONT	14	0948	1009	0953	S10	E14	.377	13224	15.5		21	-F		C	0953	.21				
ARCE	14	0950E	10000		S20	E12	.495	13224	15.3		10D	-F		P	1000	.50	.60			
GRP61154	14	1035	1058	1039	N07	E12	.206	13225	15.3		23	--N				.93				4 4 4 5
TEHR	14	1033	1058	1039	N08	E12	.207	13225	15.3		25	-N	2	C		1.00				U
BJCA	14	1035	1100		N06	E12	.208	13225	15.3		25	-B		C	1040	1.32	1.30			E
ATHN	14	1035	1053	1038	N07	E10	.172	13225	15.2		18	-N	1	C		.66				DE
MONT	14	1037	1059	1041	N07	E12	.206	13225	15.3		22	-N		C	1041	.72				E
GRP61155	14	1224	1243	1230	N13	E12	.227	13225	15.4		19	--N				.89				2 2 2 4
TEHR	14	1223	1241	1230	N14	E10	.207	13225	15.3		18	-N	3	C		.45				DE
BJCA	14	1225	1245		N11	E14	.247	13225	15.6		20	-N		C	1230	1.32	1.30			E
GRP61156	14	1423	1444	1426	S05	W71	.950	13208	9.3		21	-N				.54				3 3 3 4
HUAN	14	1422	1444	1427	S05	W77	.977	13208	8.8		22	-F	1	C	1427	.46				
ATHN	14	1423	1435D	1426	S04	W69	.938	13208	9.4		12D	-N	1	C		.50				DE
TEHR	14	1425E	1431D	1426U	S05	W66	.920	13208	9.7		5D	-N	1	V		.66				F
157 HUAN	14	1602	1608		N11	W90	1.000	13205	7.9		6	--F	1	C	1602	.26				D 2
	14	1635	1638	NO FLARE PATROL																
GRP61158	14	1901	1916	1906	N12	E03	.098	13225	15.0		15	--N				.47				2 2 2 2
PALE	14	1901	1916	1906	N13	E03	.113	13225	15.0		15	-N	3	C		.31				DE
MCMA	14	1905E	19130		N11	E03	.084	13225	15.0		8D	-N		P	1905	.62	.60			E
	15	0419	0425	NO FLARE PATROL																
GRP61159	15	0535	0553	0539	N06	E02	.041	13225	15.4		17	--N				.77				2 2 2 2
ATHN	15	0535E	0552	0538	N06	E02	.041	13225	15.4		17D	-N	1	V		.99				DE
TEHR	15	0536	0554	0540	N06	E02	.041	13225	15.4		18	-N	3	C		.55				F
GRP61164	15	1255	1314	1300	N06	W06	.106	13225	15.1		19	--N				.37				2 2 2 3
HUAN	15	1255	1316	1259	N05	W06	.111	13225	15.1		21	-N	1	C	1259	.46	.47			
TEHR	15	1256E	1312	1300U	N06	W06	.106	13225	15.1		16D	-N	2	C		.28				DE
166 HUAN	15	1410	1413	1410	S12	W07	.349	13224	15.1		3	--F	2	C	1410	.21	.22			D 3
GRP61170	15	1604	1608	(1605)	S12	W09	.362	13224	15.0		4	--F				.36				2 2 2 3
HUAN	15	1604E	1606D		S12	W08	.355	13224	15.1		2D	-N	1	P	1605	.41	.44			C
MCMA	15	1604E	1608D		S12	W10	.369	13224	14.9		4D	-F		P	1605	.31	.30			D
GRP61172	15	1803	1848	1840	N11	W11	.199	13225	14.9		45	--N				.29				2 2 2 2
MCMA	15	1803	1851	1841	N10	W12	.211	13225	14.9		48	-N		C	1841	.21	.20			D
PALE	15	1831E	1845	1838	N11	W09	.168	13225	15.1		14D	-N	3	C		.36				DE
	15	1929	1944	NO FLARE PATROL																
	15	2005	2011	NO FLARE PATROL																
173 PALE	15	2015E	2021	2015U	N12	W11	.205	13225	15.0		6D	--N	3	C		.27				DE 2
	15	2031	2039	NO FLARE PATROL																
	15	2110	2200	NO FLARE PATROL																
GRP61174	15	2212	2239	2215	N12	W13	.236	13225	15.0		27	--B				.69				2 2 2 2
WORO	15	2212	2238	2215	N12	W14	.252	13225	14.9		26	-B		C	2215	.65	.66		87	DJ
PALE	15	2213E	22390	2215U	N12	W12	.221	13225	15.0		26D	-N	3	C		.72				DE
175 PALE	15	2353E	2357D	2354U	N06	W10	.174	13225	15.2		4D	--F	2	C		.36				DE 3
GRP61175	16	0225	0243	0236	N11	W15	.264	13225	15.0		18	-F				.80				2 2 2 4
MANI	16	0225E	0245	0233	N11	W14	.248	13225	15.1		20D	-N			0233	1.24	1.28			
MANI	16	0225E	0245	0229U	N11	W14	.248	13225	15.1		20D	-N	1		0229	.62	.65			FH
PALE	16	0238E	0241	0238U	N11	W16	.280	13225	14.9		3D	-F	2	C		.36				DE
GRP61177	16	0259	0313	0301	S11	W15	.399	13224	15.0		14	--N				.66				2 2 2 2
TEHR	16	0258E	0313	0300	S10	W16	.398	13224	14.9		15D	-N	2	C		.59				F
MANI	16	0300	0313	0302	S12	W14	.402	13224	15.1		13	-N	1		0302	.72	.75			F
178 PALE	16	0331E	0338	0333	S10	W16	.398	13224	14.9		7D	--F	2	C		.36				DE 3

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	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Deg	MAX. INT. %	
GRP61180	16	0438	0452	0440	S11	W16	.410	13224	15.0	14	--N				.59				2 2 2 3
MANI	16	0438	0453	0440	S11	W15	.399	13224	15.1	15	-N	1		0440	.52	.56			F
TEHR	16	0438	0447	0439	S10	W16	.398	13224	15.0	9	-N	4	V		.66				U F
TEHR	16	0438	0458	0439	S10	W17	.409	13224	14.9	12	-N	4	C		.37				F
GRP61181	16	0631	0651	0635	N08	W14	.240	13225	15.2	20	--F				.68				2 2 2 6
ABST	16	0625	06500	0636	N08	W15	.257	13225	15.1	250	-F		P	0636	1.08	1.10			DJ
TEHR	16	0630	0651	0633	N07	W14	.240	13225	15.2	21	-F	3	C		.28				
ABST	16	0632	06500	0640	N09	W13	.225	13225	15.3	180	-F		P	0640	.90	.90			DJ
6 STATIONS REPORTING GROUP 61182. 3 STATIONS OBSERVING AND NOT REPORTING.																			
GRP61182	16	0750	0815	0757	N07	W15	.257	13225	15.2	25	--N				.54				5 5 5 9
MONT	16	0745	0749	0748	N07	W10	.172	13225	15.6	4	-F		C	0748	.21				
MONT	16	0748	0814	0758	N08	W14	.240	13225	15.3	26	-N		C	0758	.62				E
MANI	16	0750E	08150	0752U	N06	W16	.275	13225	15.1	250	-F	1		0752	.52	.54			F
ATHN	16	0751	0819	0758	N07	W16	.274	13225	15.1	28	-N	2	C		.50				F
TEHR	16	0755E	0813	0758	N07	W15	.257	13225	15.2	180	-N	4	C		.37				F H
ARCE	16	0800E	08120		N08	W14	.240	13225	15.3	120	-F		P	0800	.69	.73			
TEHR	16	0815E	0824	0819U	N10	W19	.325	13225	14.9	90	-N	4	C		.36				F
61182	16	0726	0810	0731	N06	W13	.224	13225	15.3	44	*-F				.78				2 2 2 8
UPIC	16	0720	0810	0730U	N06	W16	.275	13225	15.1	50	-N		P	0730	1.47				ITK
TEHR	16	0731	07360	0732	N06	W09	.157	13225	15.6	50	-F	3	C		.08				
GRP61184	16	0858	0914	0902	N10	E69	.928	13234	21.5	16	--F				.31				3 3 3 7
TEHR	16	0856	0906	0901	N09	E70	.935	13234	21.6	10	-F	4	C		.19				
ATHN	16	0859	0923	0902	N11	E70	.934	13234	21.6	24	-F	1	C		.33				F
MONT	16	0859	0912	0902	N10	E67	.915	13234	21.4	13	-N		C	0902	.41				E
GRP61185	16	0933	0945	0936	N07	W11	.189	13225	15.6	12	--F				.37				3 2 2 7
UPIC	16	0840	09500	0850	N07	W16	.274	13225	15.2	700	-F		P	0850	1.68				IEKT
MONT	16	0933	0944	0936	N07	W11	.189	13225	15.6	11	-N		C	0936	.41				E
ATHN	16	0933	0945	0935	N07	W11	.189	13225	15.6	12	-F	1	C		.33				F
GRP61186	16	1057	1121	1104	N07	W17	.290	13225	15.2	24	--N				.47				4 4 3 7
MONT	16	1055	11100	1106	N08	W15	.257	13225	15.3	150	-N		C	1106	.62				E
TEHR	16	1056	1126	1101	N07	W18	.307	13225	15.1	30	-N	4	C		.45				U F
WEND	16	1058	1122		N07	W18	.307	13225	15.1	24	-N								
ATHN	16	1100	1116	1106	N07	W18	.307	13225	15.1	16	-F	1	C		.33				F
GRP61187	16	1140	1234	1147	N10	W18	.309	13225	15.1	54	-N				1.05				2 2 2 6
UPIC	16	1140	1230U	1145	N07	W17	.290	13225	15.2	500	-N		P	1145	1.68				ITK
MCMA	16	1140	1155	1148	N11	W21	.360	13225	14.9	16	-N		C	1148	.41	.40			E
MCMA	16	1229	1234	1229	N13	W16	.289	13225	15.3	5	-N		C	1229	.21	.20			D
GRP61188	16	1323	1545	1434	N05	W19	.326	13225	15.1	142	--F				1.52				3 3 3 5
MCMA	16	1305E	16000		N05	W18	.310	13225	15.2	1750	1N		C	1350	2.27	2.20			FH
HUAN	16	1320U	1425	1342U	N05	W22	.374	13225	14.9	660	-F	1	C	1342	.83	.89			T
UPIC	16	1325	1345U	1335	N06	W21	.357	13225	15.0	200	-F		P	1335	1.47				IT
UPIC	16	1525U	1530		N07	W14	.240	13225	15.6	50	-N		P	1525	.63				IT
GRP61191	16	2204	2213	2207	N06	W24	.405	13225	15.1	9	--N				.49				2 2 2 2
MCMA	16	2204	22130		N05	W25	.422	13225	15.0	90	-N		C	2211	.62	.70			E
PALE	16	2207E	22100	2207U	N07	W23	.388	13225	15.2	30	-N	2	C		.36				F
	16	2213	2225	NO FLARE PATROL															
	16	2230	2305	NO FLARE PATROL															
	16	2312	2317	NO FLARE PATROL															
	17	0044	0101	NO FLARE PATROL															
192 MANI	17	0122	01340	0127	N11	W29	.483	13225	14.9	120	-N	1		0127	1.03	1.18			F 1
	17	0134	0150	NO FLARE PATROL															
193 MANI	17	0150E	02080	0150U	N10	W28	.467	13225	15.0	180	-N	1		0150	1.24	1.40			1
	17	0208	0241	NO FLARE PATROL															
GRP61194	17	0329	0404	0334	N05	W27	.453	13225	15.1	35	-N				1.13				3 3 3 3
TEHR	17	0326	0404	0333	N06	W26	.436	13225	15.2	38	-N	3	C		1.00				F
VORO	17	0329	04000	0333	N04	W28	.470	13225	15.0	310	-8		C	0333	1.47	1.64		76	
TACH	17	0331	03560	0336	N06	W28	.467	13225	15.0	250	-N		W	0333	.91	1.04		69	E

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	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	NOAA PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Mα	MAX. INT. %	
GRP61195	17	0717	0737	0721	N06	W30	.497	13225	15.1	20	--N				.79				4 4 4 7
ATHN	17	0715	0741	0722	N07	W30	.496	13225	15.1	26	-N	1	C		.50				F
TEHR	17	0716	0736	0719	N06	W28	.467	13225	15.2	22	-N	3	C		.72				F
UPIC	17	0718	0730	0723	N05	W30	.499	13225	15.1	12	-N		P	0723	.85				IT
BUCA	17	0720	0737		N06	W30	.497	13225	15.1	17	-N		C	0720	1.10	1.30			E
GRP61198	17	1103	1122	1108	S11	W32	.597	13224	15.1	19	--F				1.04				4 4 4 8
ATHN	17	1006E	1119	1108	S13	W32	.611	13224	15.0	730	-F	1		1118	.68	.70			
MEUD	17	1037	1125	1107	S12	W29	.568	13224	15.3	48	-N		C	1107	1.24	1.50			F
TEHR	17	1102	1122	1109	S10	W33	.603	13224	15.0	20	-N	4	C		.45				F
ABST	17	1103E	1117D	1109	S10	W33	.603	13224	15.0	140	1F		P	1109	1.80	2.20			FJ
ATHN	17	1105	1125	1109	S12	W30	.580	13224	15.2	20	-F	2	C		.66				F
GRP61203	17	1501	1516	1507	S13	W32	.611	13224	15.2	15	--F				.32				3 3 3 4
RAMY	17	1500	1515	1504	S14	W33	.629	13224	15.1	15	-F	4	C		.28				DE
MCMA	17	1501	1517	1510	S12	W33	.616	13224	15.2	16	-N		C	1510	.26	.40			D
MEUD	17	1503	1515	1508	S13	W31	.599	13224	15.3	12	-F		C	1508	.41	.50			
GRP61205	17	1756	1818	1800	N11	W37	.598	13225	15.0	22	--F				.76				5 5 5 5
BOUL	17	1752	1825	1801	N10	W37	.597	13225	15.0	33	-N		C	1801	.96	1.21			
RAMY	17	1756	1819	1758	N10	W36	.583	13225	15.0	23	-F	4	C		1.03				DE H
HUAN	17	1758	1814	1800	N12	W40	.639	13225	14.7	16	-N	2	C	1800	.67	.88			E
PALE	17	1758	1813	1800	N12	W38	.612	13225	14.9	15	-F	3	V		.83				F
MCMA	17	1803E	18030		N13	W40	.640	13225	14.8		-F		P	1803	.31	.40			D
PALE	17	1808	1814	1810	N08	W33	.540	13225	15.3	6	-F	3	V		.21				U
PALE	17	1824	1829	1825	N12	W32	.528	13225	15.4	5	-F	3	V		.21				DE
GRP61206	17	1832	2015	1837	S09	W37	.646	13224	15.0	103	--F				.80				3 2 2 4
RAMY	17	1828	1847D	1836	S09	W37	.646	13224	15.0	190	-F	4	C		.46				DE
BOUL	17	1828	2015	1910	S13	W33	.622	13224	15.3	107	-F		C	1910	1.71	2.04			
PALE	17	1835	1854	1838	S09	W36	.634	13224	15.1	19	-F	3	V		1.13				
GRP61207	17	1923	1931	1927	N10	W33	.541	13225	15.3	8	--F				.53				2 2 2 3
BOUL	17	1921	1932	1927	N10	W33	.541	13225	15.3	11	-F		C	1927	.75	.89			
HJAV	17	1925	1929	1926	N09	W33	.540	13225	15.3	4	-N	2	C	1926	.31	.37			
208 BOUL	17	2002	2026	2010	N12	W33	.543	13225	15.4	24	--F		C	2010	.54	.64			2
	17	2133	2213	NO FLARE PATROL															
GRP61209	17	2212	2235	2221	N11	W34	.556	13225	15.4	23	--N				.60				3 3 3 3
BOUL	17	2212	2221D	2219	N12	W34	.557	13225	15.4	90	-F		C	2219	.32	.39			
VORO	17	2215E	2238		N10	W35	.569	13225	15.3	230	-B		C	2221	.46	.56		71	
MANI	17	2222E	2232	2223U	N11	W33	.542	13225	15.5	100	-N	1		2223	1.03	1.23			
GRP61211	18	0053	0107	0053	N10	W34	.555	13225	15.5	14	--N				.52				2 1 1 3
MANI	18	0053E	0107	0053U	N10	W34	.555	13225	15.5	140	-N	1		0053	.52	.63			
PALE	18	0104E	0107	0104U	N08	W37	.597	13225	15.3	30	-F	2	V		.26				F
GRP61213	18	0316	0331	0322	N06	W40	.639	13225	15.1	15	--F				.41				4 4 4 4
TEHR	18	0316	0334	0324	N04	W40	.642	13225	15.1	18	-N	4	C		.41				DE
MANI	18	0318E	0339	0318U	N05	W41	.654	13225	15.1	21D	-F	2		0318	.31	.41			
TACH	18	0320E	0325	0323	N08	W41	.651	13225	15.1	5D	-N		V	0323	.64	.86		54	DLT
PALE	18	0324E	0325D	0324U	N07	W39	.625	13225	15.2	1D	-F	2	V		.26				
GRP61214	18	0451	0515	0454	N09	W37	.597	13225	15.4	24	--N				.78				2 2 2 4
MANI	18	0451	0515	0454	N08	W36	.583	13225	15.5	24	-N	2		0454	.83	1.02			FH
TEHR	18	0452E	0505D	0453U	N10	W37	.597	13225	15.4	13D	-N	4	V		.56				DE
GRP61215	18	0720	0746	0728	N10	W38	.611	13225	15.5	26	--F				.90				5 5 5 8
MONT	18	0718	0732	0726	N12	W38	.612	13225	15.5	14	-F		C	0726	.21				
TEHR	18	0720E	0735D	0728	N08	W38	.611	13225	15.5	15D	-N	4	V		.41				DE
BUCA	18	0720	0800		N11	W39	.625	13225	15.4	40	1F		C	0738	2.21	2.80			E
ATHN	18	0723	0757	0729	N12	W39	.626	13225	15.4	34	-N	1	C		.66				F
MANI	18	0728E	0748D	0730U	N08	W37	.597	13225	15.5	20D	-F	1		0730	1.03	1.29			F
5 STATIONS REPORTING GROUP 61217. 4 STATIONS OBSERVING AND NOT REPORTING.																			
GRP61217	18	0824	0840	0827	N09	W42	.664	13225	15.2	16	-N				1.47				5 5 5 9
MONT	18	0821	0842	0825	N08	W41	.651	13225	15.3	21	-N		C	0825	1.86				
ABST	18	0823	0847	0826	N13	W42	.665	13225	15.2	24	-N		C	0826	.90	1.20			D
TEHR	18	0825E	0846D	0828U	N08	W39	.625	13225	15.4	15D	-N	4	V		.41				F
UPIC	18	0825	0840	0830U	N07	W43	.678	13225	15.1	15	-N		P	0830	1.26				IT
ABST	18	0825	0839	0826	N08	W44	.690	13225	15.1	14	1N		C	0826	1.89	2.50			EV
KHAR	18	0825E	0840D		N13	W42	.665	13225	15.2	15D	-N		P	0830	1.03	1.50	1.80		OT
KHAR	18	0825E	0840D		N09	W43	.677	13225	15.1	15D	-F		P	0830	1.13	1.50	1.80		OT
217 ABST	18	0824	0830	0826	N10	W49	.749	13225	14.7	6	*-F		C	0826	.63	.90			D 9

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	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
8 STATIONS REPORTING GROUP 61219.							3 STATIONS OBSERVING AND NOT REPORTING.												
GRP61219	18	1108	1234	1122	N11	W42	.664	13225	15.3	86	2N				4.55				4 4 3 9
HJR3	18	1054	1244	1123	N13	W38	.613	13225	15.6	110	2N						2.77		EIF
KHAR	18	1059E	12000		N13	W43	.678	13225	15.2	61D	2N		P	1122	6.24	8.60	1.80		ET
MONT	18	1107E	1234	1124	N10	W42	.664	13225	15.3	87D	1N		C	1124	3.40				
KHAR	18	1108E	11420		N10	W45	.702	13225	15.1	34D	1N		P	1136	2.84	4.00	1.20		DT
UPIC	18	1110	1225	1120U	N10	W42	.664	13225	15.3	75	2N		P	1120	4.00				ITF
61219	18	1051	1244	1058	N09	W42	.664	13225	15.3	113	*-N				1.26				4 4 4 6
KHAR	18	1045E	12000		N08	W48	.738	13225	14.8	75D	1N		P	1107	2.84	3.80	1.20		DT
TEHR	18	1046E	11480	1057	N08	W40	.638	13225	15.4	62D	-N	4	V		1.03				F
KHAR	18	1050E	11100		N14	W39	.628	13225	15.5	20D	-N		P	1053	.93	1.40	1.20		DT
ATHN	18	1052	1244	1056	N08	W42	.664	13225	15.3	112	-N	1		1056	.34	.37			
UPIC	18	1055	1103U	1101	N06	W46	.716	13225	15.0	8D	-N		P	1101	.42				ITD
UPIC	18	1055	1103U	1101	N13	W39	.627	13225	15.5	8D	-N		P	1101	.42				ITD
61219	18	1142	1345	(1151)	N12	W45	.702	13225	15.1	123	*-N				1.14				3 3 2 10
MCMA	18	1142E	13450		N12	W41	.652	13225	15.4	123D	1B		P	1150	1.55	2.10			E
HJAV	18	1147E	12000		N12	W42	.665	13225	15.3	13D	-N	1	P	1152	.72	.96			C
KHAR	18	1150E	11590		N12	W52	.782	13225	14.6	9D	-F		V						DT
4 STATIONS REPORTING GROUP 61221.							0 STATIONS OBSERVING AND NOT REPORTING.												
GRP61221	18	1610	1830	1634	N08	W45	.702	13225	15.3	14D	1N				2.04				2 2 2 4
BOUL	18	1610	1840	1635	N07	W48	.739	13225	15.1	15D	1N		C	1635	1.39	2.08			
PALE	18	1633E	1819	1633U	N08	W42	.664	13225	15.5	106D	1N	3	V		2.68				U F
61221	18	1520	1938	1604	N09	W47	.726	13225	15.1	25B	*1N				2.48				3 1 1 3
HUAN	18	1520	19380		N09	W47	.726	13225	15.1	25BD	1N	1	P	1713	2.48	2.50			
BOUL	18	1528	1635	1604	N11	W43	.677	13225	15.4	6?	1F		C	1604	2.03	2.79			
MCMA	18	1546E	2010		N12	W43	.677	13225	15.4	264D	1B		P	1649	2.06	2.80			F
GRP61222	18	1925	1932	1927	S12	W67	.936	13232	13.8	7	-N				.39				2 2 2 3
HUAN	18	1924	1931	1926	S13	W67	.937	13232	13.8	7	-N	2	C	1926	.36				
MCMA	18	1925	1932	1927	S11	W67	.934	13232	13.8	7	-N		C	1927	.41	1.30			E
	18	2155	2205	NO FLARE PATROL															
223 PALE	19	0146E	02080	0159U	S12	W67	.935	13232	14.0	22D	--N	2	V		.52				DE 2
	19	0206	0228	NO FLARE PATROL															
	19	0233	0310	NO FLARE PATROL															
224 TAC4	19	0425E	04350	0430	N09	W52	.782	13225	15.3	10D	1N		V	0430	1.36	2.21		63	E 1
3 STATIONS REPORTING GROUP 61225.							1 STATIONS OBSERVING AND NOT REPORTING.												
GRP61225	19	0624	0644	0628	N11	W56	.823	13225	15.1	20	--F				1.12				3 3 3 4
ATHN	19	0623	0636	0628	N11	W58	.842	13225	14.9	13	-F	1		0628	.52	.68			
BUCA	19	0625	0651		N11	W58	.842	13225	14.9	26	1F		C	0628	2.21	4.10			E
MANI	19	0626E	05290	0628	N11	W52	.782	13225	15.4	3D	-F	1		0628	.62	.98			F
225 ATHN	19	0632	0637	0633	N33	W55	.818	13225	15.1	5	*-F	1		0633	.17	.20			4
229 BOUL	19	1930	1959	1940	N10	W66	.908	13225	14.9	29	--F		C	1940	.32	.78			3
GRP61230	19	2052	2122	2111	S11	W64	.915	13224	15.1	30	--F				.59				2 2 2 2
BOUL	19	2052	2122	2108	S10	W65	.920	13224	15.0	30	-F		C	2108	.86	2.02			
PALE	19	2112E	21140	2114U	S12	W63	.910	13224	15.2	2D	-N	2	V		.31				F
5 STATIONS REPORTING GROUP 61231.							0 STATIONS OBSERVING AND NOT REPORTING.												
GRP61231	19	2223	0308	2240	N09	W62	.878	13225	15.3	10B	2N				5.57				3 3 3 4
BOUL	19	2210	00150	2244	N12	W62	.876	13225	15.3	125D	2N		C	2244	4.82	10.41			
WORJ	19	2224	02250	2239	N08	W62	.878	13225	15.3	241D	3F		C	2239	9.00	17.90		111	
PALE	19	2225	0000	2238U	N07	W63	.887	13225	15.2	95	2B	2	V		2.89				UDE
61231	19	2253	0208	2253	N08	W63	.886	13225	15.2	195	*1B				3.97				2 2 2 5
MANI	19	2253E	02080	2253U	N08	W63	.886	13225	15.2	195D	2B	2		2253	6.19	11.82			E
MANI	19	2253E	01060	2253U	N04	W65	.904	13225	15.1	133D	-N	2		2253	.41	.81			F
MANI	19	2253E	01060	0000	N04	W65	.904	13225	15.1	133D	-N			0000	.83	1.62			
MITC	20	0134E	01550		N10	W62	.877	13225	15.4	21D	1B		C	0135	1.75	3.60			E
	20	0231	0308	NO FLARE PATROL															
233 TAC4	20	0345E	03460		N10	W66	.908	13225	15.2	1D	-N		V	0345	1.19			66	E 1
234 TAC4	20	0416E	04280		N10	W67	.915	13225	15.2	12D	-N		V	0416	.83			51	E 3

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SEPTEMBER 1974

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH HB	MAX. INT. %	
GRP61236	20	1243	1253	1247	N15	W80	.980	13225	14.5	10	--F				.55				2 2 1 4
TEHR	20	1242E	12500	1246U	N15	W79	.977	13225	14.6	8D	-F	3	C		.55				F
HOMA	20	1243	1253	1247	N14	W80	.980	13225	14.5	10	-F		C	1247					D
	20	1952	2011	NO FLARE PATROL															
	20	2018	2031	NO FLARE PATROL															
237 HJAN	20	2031E	20450		N13	W79	.977	13225	14.9	14D	--F	1	P	2038	.21				CD 1
	20	2045	2049	NO FLARE PATROL															
	20	2058	2106	NO FLARE PATROL															
	20	2138	2154	NO FLARE PATROL															
	20	2214	2220	NO FLARE PATROL															
238 VORJ	20	2307	2314	2309	N04	W82	.989	13225	14.8	7	1F		C	2309	.46	2.26		59	1
239 VORO	21	0011	0018	0013	N12	E09	.176	13234	21.7	7	--B		C	0013	.65	.65		77	1
GRP61240	21	0405	0420	0408	N08	W86	.996	13225	14.7	14	-N				.60				2 2 2 2
TEHR	21	0406E	0420	0408	N08	W86	.996	13225	14.7	14D	-N	3	C		.28				F
TAGO	21	0407E	04150		N07	W85	.995	13225	14.8	8D	-N		V	0407	.91			54	
243 HJAN	21	1310	1340	1317	N13	W87	.997	13225	15.0	30	--F	1	C	1317	.36				3
244 HJAN	21	1542	1548	1546	N04	W90	1.000	13225	14.9	6	--F	1	C	1546	.26				D 2
	21	1938	1950	NO FLARE PATROL															
	21	2010	2015	NO FLARE PATROL															
	21	2019	2022	NO FLARE PATROL															
245 HOMA	21	2022E	20400	2032	N14	W88	.998	13225	15.2	18D	--F		C	2032					D 1
	21	2040	2053	NO FLARE PATROL															
	21	2134	2135	NO FLARE PATROL															
	22	0236	0239	NO FLARE PATROL															
249 HJAN	22	1204	1228	1220U	N17	W90	.999	13225	15.8	24	--F	1	C	1220	.26				D 3
250 HJAN	22	1254	1312	1305	N17	W90	.999	13225	15.8	18	-N	1	C	1305	.36				3
	22	1539	1540	NO FLARE PATROL															
	22	2201	2253	NO FLARE PATROL															
	22	2257	2321	NO FLARE PATROL															
	22	2326	2342	NO FLARE PATROL															
252 MITK	23	0021E	00450		N13	W90	1.000	13225	16.3	24D	1B		C	0042	.62				D 2
	23	0105	0115	NO FLARE PATROL															
	23	0138	0142	NO FLARE PATROL															
	23	0313	0334	NO FLARE PATROL															
	23	0340	0422	NO FLARE PATROL															
	23	0522	0551	NO FLARE PATROL															
	23	2355	0110	NO FLARE PATROL															
	24	0122	0132	NO FLARE PATROL															
	24	0243	0250	NO FLARE PATROL															
	24	0315	0434	NO FLARE PATROL															
	24	2242	2247	NO FLARE PATROL															
	25	0040	0042	NO FLARE PATROL															

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OBSERV-ATORY	OBSERVED UT				LOCATION						DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY		MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	25	0050	0052	NO FLARE PATROL																
255 TEHR	25	0446	0500	0449	S11	E86	.999	13257	31.6		14	--F	3	C		.28				3
256 TEHR	25	0504	0530	0522	S11	E86	.999	13257	31.7		26	--F	3	C		.45				4
	25	0649	0703	NO FLARE PATROL																
	26	0230	0231	NO FLARE PATROL																
	26	2400	0041	NO FLARE PATROL																
	27	0046	0050	NO FLARE PATROL																
	27	0110	0115	NO FLARE PATROL																
	27	0148	0154	NO FLARE PATROL																
	27	0158	0205	NO FLARE PATROL																
GRP61264	27	1253	1340	1313	N13	W32	.531	13250	25.1		47	--F				.29				3 3 3 7
MONT	27	1253	13240	1313	N13	W31	.517	13250	25.2		31D	-F		C	1313	.21				
TEHR	27	1253E	13190	1311U	N14	W31	.519	13250	25.2		26D	-F	3	C		.36				F
HTPR	27	1253	1340	1315	N12	W33	.544	13250	25.1		47	-F		C	1315	.31	.40			E
HTPR	27	1253	1340	1315	N12	W33	.544	13250	25.1		47	-F		C	1315	.31	.40			E
	27	2041	2056	NO FLARE PATROL																
	27	2121	2225	NO FLARE PATROL																
	27	2335	2344	NO FLARE PATROL																
	28	0034	0043	NO FLARE PATROL																
	28	0135	0142	NO FLARE PATROL																
	28	0203	0210	NO FLARE PATROL																
	28	0213	0234	NO FLARE PATROL																
	28	0235	0240	NO FLARE PATROL																
	28	0241	0246	NO FLARE PATROL																
GRP61270	28	1407	1414	1409	S05	E76	.973	13263	4.3		7	--F				.26				2 2 2 5
BOUL	28	1404	1412	1408	S05	E73	.960	13263	3.1		8	-F		C	1408	.21	.62			
HJAV	28	1409	1415	1410	S05	E78	.981	13263	3.4		6	-F	1	C	1410	.31				
GRP61273	28	2009	2019	2011	N07	E90	1.000	13274	5.6		10	--F				.23				2 2 2 3
HJAV	28	2009	20210		N09	E90	1.000	13274	4.6		12D	-F	1	P	2011	.26				
PALE	28	2009	2017	2011	N05	E90	1.000	13274	4.6		8	-N	3	C		.19				
GRP61274	28	2030	2040	2034	S15	E63	.915	13271	3.6		10	--F				.28				2 2 2 3
HJAV	28	2030	20350		S14	E63	.913	13271	2.6		5D	-F	1	P	2031	.15	.34			D
PALE	28	2033E	20400	2034U	S16	E62	.910	13271	2.5		7D	-F	2	C		.41				DE
275 BOUL	28	2118	2135	2125	N06	E65	.903	13262	2.8		17	--F		C	2125	.21	.50			2
278 TEHR	29	0437	0443	0439	S14	E62	.906	13271	2.8		6	--F	4	C		.19				2
GRP61285	29	0807	0835	0810	S12	E30	.577	13257	1.6		29	-N				.95				6 6 6 8
BUCA	29	0805	0915		S13	E28	.561	13257	31.4		70	-N		C	0810	1.10	1.30			E
MANI	29	0805	08330	0808	S11	E30	.570	13257	31.6		28D	-F	2		0808	.72	.87			F
HTPR	29	0806	0830	0810	S12	E30	.577	13257	31.6		24	-N		C	0810	.93	1.10			
HTPR	29	0806	0830	0810	S12	E30	.577	13257	31.6		24	-N		C	0810	.93	1.10			
ATHN	29	0807	0821	0809	S13	E31	.597	13257	31.7		14	-F	4	V		.66				F
TEHR	29	0807	0827	0812	S12	E30	.577	13257	31.6		20	-F	4	C		.19				
ABST	29	0809	0907	0811	S11	E29	.558	13257	31.5		58	18		C	0811	2.07	2.50		98	EGJK
GRP61286	29	0927	0949	0936	S07	E63	.901	13263	4.1		22	-N				.70				4 4 4 6
ARCE	29	0922E	0942		S05	E65	.913	13263	3.3		20D	-N		C	0940	.75				
BUCA	29	0930	1000		S08	E65	.917	13263	3.3		30	-N		C	0935	.66	1.60			
HTPR	29	0930	0949D		S10	E60	.884	13263	2.9		19D	-N		C	0937	.72	1.50			
HTPR	29	0930	0949D		S10	E60	.884	13263	2.9		19D	-N		C	0937	.72	1.50			
ATHN	29	0936E	0943	0936U	S06	E63	.900	13263	3.1		7D	-F	4	V		.66				DE

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP61283	29	1016	1047	1030	S05	E59	.867	13263	3.9	31	--F				.58				3 2 2 5
TEHR	29	1016	1027	1021	S06	E65	.914	13263	3.3	11	-F	4	C		.28				
BUCA	29	1025	1050		S05	E60	.875	13263	2.9	25	-N		C	1036	.66	1.30			
ATHN	29	1037E	1043	1038U	S05	E58	.858	13263	2.8	6D	-F	4	V		.50				DE
GRP61290	29	1051	1111	1100	S09	E63	.904	13263	4.2	20	-N				.62				3 3 3 4
TEHR	29	1042	1109	1059	S15	E65	.927	13263	3.3	27	-F	4	C		.27				
BJCA	29	1054	1120		S06	E65	.914	13263	3.3	26	1F		C	1100	1.10	2.90			F
ATHN	29	1058	1105	1100	S05	E58	.858	13263	2.8	7	-B	4	V		.50				DE
GRP61291	29	1126	1143	1128	S13	E27	.550	13257	1.5	17	--F				.80				2 2 2 4
BJCA	29	1125	1147		S12	E26	.530	13257	31.4	22	-N		C	1130	1.10	1.30			E
ATHN	29	1126	1138	1128	S13	E28	.561	13257	31.6	12	-F	4	V		.50				F
GRP61292	29	1218	1229	1220	S07	E64	.909	13263	4.3	11	--F				.71				3 3 3 4
TEHR	29	1215	1232	1220	S05	E63	.899	13263	3.2	17	-F	4	C		.37				F
ATHN	29	1218	1224	1220	S09	E65	.918	13263	3.4	6	-F	4	V		.66				F
BJCA	29	1221	1230		S07	E63	.901	13263	3.2	9	1N		C	1222	1.10	2.70			
GRP61294	29	1314	1336	1317	S12	E26	.530	13257	1.5	22	--N				.66				3 3 3 5
TEHR	29	1313	1331	1318	S11	E26	.521	13257	31.5	18	-B	4	C		.37				DE
ATHN	29	1314E	1323	1316U	S13	E27	.550	13257	31.6	9D	-F	3	V		.50				F
BUCA	29	1315	1355		S12	E24	.506	13257	31.4	40	-N		C	1320	1.10	1.30			
	29	1545	1530	NO FLARE PATROL															
296 PALE	29	1648	1708	1659	S06	E62	.892	13263	3.3	20	--F	2	C		.27				F 2
297 PALE	29	1833E	1855	1835	S16	E59	.868	13263	3.2	22D	--F	3	C		.36				DE 1
298 PALE	29	1846	1950	1904	S12	E23	.494	13257	31.5	64	--F	3	C		.19				DE 3
299 PALE	29	1904	1912	1907	S06	E57	.851	13263	3.1	8	--N	3	C		.09				DE 3
300 PALE	30	0056	0106	0101	S07	E49	.775	13263	2.7	10	--N	3	C		.23				H 2
	30	0108	0111	NO FLARE PATROL															
GRP61301	30	0133	0158	0139	S07	E54	.825	13263	4.1	25	1N				1.55				3 3 3 3
MANI	30	0133E	0205	0138	S07	E54	.825	13263	3.1	32D	1F	1		0138	1.55	2.63			F
MITK	30	0133E	0151	0142	S07	E55	.835	13263	3.2	18D	1B		C	0142	2.37	4.10			E
PALE	30	0136E	0137D	0136U	S08	E54	.827	13263	3.1	1D	-N	1	C		.72				F
GRP61302	30	0205	0213	0208	S08	E57	.855	13263	4.4	7	-N				.72				2 2 2 2
MANI	30	0205E	0215	0208	S09	E57	.857	13263	3.4	10D	-N	1		0208	.72	1.32			
MITK	30	0207	0211	0208	S07	E57	.853	13263	3.4	4	-N		C	0208	.72	1.30			D
	30	0220	0226	NO FLARE PATROL															
	30	0227	0236	NO FLARE PATROL															
	30	0237	0248	NO FLARE PATROL															
303 TEHR	30	0314	0324	0316	S06	E53	.813	13263	3.1	10	--F	4	C		.17				1
304 TEHR	30	0342	0405	0355	S07	E56	.844	13263	3.4	23	--F	4	C		.19				2
GRP61305	30	0416	0438	0424	S08	E50	.788	13263	3.9	22	--N				.40				2 2 2 3
TEHR	30	0416	0425	0421	S07	E50	.785	13263	2.9	9	-N	4	C		.17				DE H
MANI	30	0419E	0450	0426U	S08	E50	.788	13263	2.9	31D	-N	1		0426	.62	.99			F
306 TEHR	30	0548	0556	0550	N11	E45	.702	13262	2.6	8	--F	4	C		.45				F 3
GRP61307	30	0549	0558	0552	S05	E47	.747	13263	3.8	9	-N				.66				3 3 3 3
MANI	30	0528	0559	0552	S05	E47	.747	13263	2.8	31	-N	2		0552	1.03	1.57			
TEHR	30	0548	0558	0552	S05	E47	.747	13263	2.8	10	-F	4	C		.45				
ATHN	30	0549	0556	0551	S05	E46	.736	13263	2.7	7	-N	4	C		.50				DE H
ATHN	30	0558E	0604	0559	S06	E47	.750	13263	2.8	5D	-F	3	V		.33				DE
ATHN	30	0604	0620	0609	S05	E46	.736	13263	2.7	16	-F	4	C		.33				DE H
ATHN	30	0608E	0617	0609	S06	E47	.750	13263	2.8	9D	-F	3	C		.33				DE

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
5 STATIONS REPORTING GROUP 61308. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP61308	30	0652	0729	0700	S07	E51	.796	13263	4.1	37	-B				1.96				5 5 5 5
TEHR	30	0647	0735	0703	S06	E51	.793	13263	3.1	48	-B	4	C		1.19				M Z
ATHN	30	0652	0750	0702	S06	E52	.803	13263	3.2	58	-N	3	C		1.49				U F
BJCA	30	0654	0745		S07	E50	.785	13263	3.0	51	1N		C	0658	3.32	5.10			F
MITK	30	0654	0657D	0656	S06	E54	.823	13263	3.3	3D	1B		C	0656	2.78	4.50			E
HTPR	30	0654	0715	0657	S07	E50	.785	13263	3.0	21	-B		C	0657	1.03	1.60			E
HTPR	30	0654	0715	0657	S07	E50	.785	13263	3.0	21	-B		C	0657	1.03	1.60			E
ATHN	30	0658	0719	0700	S08	E48	.767	13263	2.9	21	-N	3	C		1.32				U
ATHN	30	0708	0717	0710	S08	E48	.767	13263	2.9	9	-N	3	V		1.32				U
61308	30	0652	0715	0657	S07	E57	.853	13263	4.6	23	*-B				1.03				1 1 1 5
HTPR	30	0652	0715	0657	S07	E57	.853	13263	3.6	23	-B		C	0657	1.03	1.70			E
HTPR	30	0652	0715	0657	S07	E57	.853	13263	3.6	23	-B		C	0657	1.03	1.70			E
GRP61310	30	0822	0840	0825	S05	E45	.725	13263	3.7	18	--F				.32				3 3 3 4
ATHN	30	0821	0850	0826	S06	E46	.739	13263	2.8	29	-F	3	C		.66				F H
TEHR	30	0821	0844	0825	S05	E46	.736	13263	2.8	23	-F	4	C		.19				H
HTPR	30	0823	0826	0825	S05	E43	.701	13263	2.6	3	-F		C	0825	.10	.10			
HTPR	30	0823	0826	0825	S05	E43	.701	13263	2.6	3	-F		C	0825	.10	.10			
GRP61311	30	0904	0927	0910	S06	E54	.823	13263	4.4	23	--F				.38				3 3 3 4
TEHR	30	0904	0912	0910	S05	E52	.801	13263	3.3	8	-F	4	C		.27				
ATHN	30	0904	0934	0910	S06	E55	.832	13263	3.5	30	-F	3	C		.50				OE
ARCE	30	0912E	0935D		S06	E54	.823	13263	3.4	23D	-F		P	0912	.37	.70			B
GRP61312	30	1347	1357	1350	S05	E45	.725	13263	3.9	10	--F				.25				2 2 2 3
TEHR	30	1346	1352D	1350	S05	E49	.769	13263	3.2	6D	-F	4	C		.17				
BOUL	30	1347	1357	1350	S04	E40	.661	13263	2.6	10	-F		C	1350	.32	.42			
	30	1623	1632	NO FLARE PATROL															
	30	1912	1914	NO FLARE PATROL															
313 PALE	30	1949	2001	1954	S16	E40	.668	13263	2.8	12	--F	3	C		.27				2
	30	2036	2042	NO FLARE PATROL															
	30	2136	2152	NO FLARE PATROL															
	30	2154	2204	NO FLARE PATROL															
	30	2215	2220	NO FLARE PATROL															
	30	2223	2239	NO FLARE PATROL															

In the importance column "--" signifies the subflare has been confirmed by the NOAA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity. These subflares are also not included in the Flare Index below.

DAILY FLARE INDICES

Date	Flare Index	HR OBS	Date	Flare Index	HR OBS	Date	Flare Index	HR OBS
7+0301	0.00	23.5	7+0311	27.93	23.4	7+0321	1.90	23.4
7+0302	0.00	17.3	7+0312	40.44	22.2	7+0322	0.70	22.3
7+0303	0.00	23.4	7+0313	479.07	21.5	7+0323	2.14	21.0
7+0304	0.00	23.4	7+0314	7.25	23.8	7+0324	0.00	22.3
7+0305	5.93	22.1	7+0315	0.00	22.6	7+0325	0.00	23.7
7+0306	0.00	23.3	7+0316	9.20	23.1	7+0326	0.00	23.3
7+0307	29.28	22.3	7+0317	20.99	22.2	7+0327	0.00	22.2
7+0308	0.85	23.7	7+0318	143.43	23.8	7+0328	0.00	23.1
7+0309	2.15	23.1	7+0319	173.50	23.0	7+0329	9.48	23.3
7+0310	140.82	22.5	7+0320	13.10	22.3	7+0330	37.99	22.5

When no Flare Index is given, it is 0 for that day.

Hα SOLAR FLARES
Unconfirmed
SEPTEMBER 1974

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
044 ATHN	04	1359E	1410	1400	S17	E43	.754	13204	7.8	11D	-F	1		1400	.68	.80			5
045 HUR3	05	0718	0727	0718	S10	E70	.950	13209	10.6	9	-F						1.37		7
048 MANI	05	0746E	0757D	0749U	N08	E10	.173	13205	7.1	11D	-N	1		0749	.52	.53			6
055 ATHN	07	0915	0947D	0925	S15	E27	.571	13209	9.4	31D	-F	1		0925	1.37	1.40			3
056 ATHN	07	1041	1053D	1051	S16	E33	.644	13209	9.9	12D	-F	1		1051	.85	.95			4
064 ABST	09	0658	0716	0702	N07	E78	.975	13225	15.1	18	1F		C	0702	1.62				FJ 5
GRP61065	09	0958	1010	1001	N09	E83	.990	13225	15.6	12	1F				.63				2 2 1 8
KHAR	09	0958E	1038D	1001	N07	E83	.991	13225	15.6	100	1F		V	1000			1.80		OH
UPIC	09	1002E	1010		N11	E82	.987	13225	15.6	8D	1N		P	1002	.63				
076 ABST	10	0707	0757D	0730	N07	W49	.750	13205	6.6	50D	-F		P	0730	.99	1.40		62	FJK 5
077 ABST	10	0715	0722D	0717	N08	E65	.902	13225	15.2	7D	1F		C	0717	1.71	3.80		48	EJ 5
078 ABST	10	0731	0744	0737	N07	E65	.902	13225	15.2	13	-F		C	0737	.90	2.00		58	DJ 6
079 TEHR	10	0845E	0851	0845U	S05	W14	.319	13208	9.3	6D	-F	3	C		.27				F 6
GRP61080	10	1238	1253	1242	N07	E64	.895	13225	15.3	15	-F				.42				2 2 2 7
MEUD	10	1238	1255	1240	N07	E62	.879	13225	15.2	17	-N		C	1240	.52	1.10			CO
HUAN	10	1238	1250	1243	N06	E66	.910	13225	15.5	12	-F	1	C	1243	.31	.68			
GRP61082	10	1351	1407	1358	N11	E62	.877	13225	15.2	16	-F				.93				2 2 1 9
MCMA	10	1346	14150	1358	N10	E66	.908	13225	15.5	29D	1F		C	1358	.93	2.20			EH
HJAN	10	1355	1359	1357	N11	E58	.842	13225	14.9	4	-F	1	C						
083 MCMA	10	1400	1420	1405	N07	W48	.739	13205	7.0	20	-N		C	1405	1.03	1.70			H 8
084 HUAN	10	1448	1453	1450	N07	E63	.887	13225	15.3	5	-F	1	C	1450	.21	.45			D 4
088 PALE	10	1831E	1836	1832	N06	E65	.903	13225	15.6	5D	-F	2	V		.21				DE 4
089 PALE	10	1838E	1840D	1839	N08	W51	.772	13205	7.0	2D	-F	2	V		.31				DE 4
094 MANI	11	0326E	0334D	0326U	N06	W58	.844	13205	6.8	8D	-F	1		0326	.62	1.08			4
GRP61096	11	0707	0718	0710	N09	W61	.869	13205	6.7	11	1N				1.08				1 1 1 5
ABST	11	0707E	0713	0708	N09	W62	.877	13205	6.6	6D	-N		P	0708	.81	1.60		82	DJ
ABST	11	0708	0718	0710	N09	W61	.869	13205	6.7	10	1N		C	0710	1.08	2.10		60	DJ
097 ABST	11	0730	0739	0733	S14	E53	.836	13224	15.3	9	-F		C	0733	.90	1.60		54	DJ 6
098 ABST	11	0732E	0742	0733	N06	E49	.751	13225	15.0	10D	1F		P	0733	1.53	2.30		52	EJ 6
099 MONT	11	0813	0842	0832	N10	E49	.749	13225	15.0	29	-N		C	0832	.83				EK 6
100 MONT	11	0849	0855	0851	N08	W61	.870	13205	6.8	6	-F		C	0851	.21				6
101 UPIC	11	0915	0945U		N08	W63	.886	13205	6.7	30D	-F		P	0925	.63				9
102 UPIC	11	0920	0940U	0930	S14	W50	.809	13204	7.6	20D	-F		P	0930	.42				9
103 UPIC	11	0945E	0945D		N06	E52	.784	13225	15.3		-F		P	0945	.85				IT 8
GRP61105	11	1059	1113	1103	N09	E51	.771	13225	15.3	14	-F				.95				2 2 2 7
MONT	11	1059	1110	1103	N10	E48	.737	13225	15.1	11	-F		C	1103	.21				
UPIC	11	1106E	1116		N08	E54	.804	13225	15.5	10D	1N		P	1106	1.68				IT
106 MONT	11	1136	1149D	1149	N11	E49	.749	13225	15.2	13D	-N		C	1149	.41				E 6
107 UPIC	11	1150	1205	1155U	N06	E51	.773	13225	15.3	15	-F		P	1155	1.05				IT 6
108 UPIC	11	1215E	1222		N08	E53	.793	13225	15.5	7D	-N		P	1215	.63				IT 6
109 MONT	11	1336	1356	1340	N10	E48	.737	13225	15.2	20	-N		C	1340	1.03				E 5
112 TEHR	12	0412	0425	0418	S08	W35	.617	13208	9.6	13	-F	3	C		.17				F 6
114 MANI	12	0632	0640	0635	S06	W36	.619	13208	9.6	8	-F	2		0635	.31	.39			6
116 ABST	12	0748E	0806	0752	N12	E37	.598	13225	15.1	18D	1F		P	0752	1.71	2.10			F 7
118 UPIC	12	0924U	1010U	0930	N05	E38	.613	13225	15.2	46D	-N		P	0930	1.26				IT 10

Hα SOLAR FLARES
Unconfirmed
SEPTEMBER 1974

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE SEP	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP61119	12	1029	1040	1030	S04	W43	.699	13208	9.2	11	-F				.67				2 2 2 10
KHAR	12	1027E	10400	1030	S04	W43	.699	13208	9.2	130	-N		P	1030	.91	1.40			D
UPIC	12	1031	1040		S04	W43	.699	13208	9.2	9	-F		P	1035	.42				
120 UPIC	12	1040E	1120	1044	N04	E38	.615	13225	15.3	400	-N		P	1044	1.26				ITKF 11
121 KHAR	12	1230E	12400		S12	E72	.962	13229	17.9	100	-F		P	1234	.57				DT 10
124 UPIC	12	1400E	1445		N06	E36	.585	13225	15.3	450	-N		P	1400	1.68				ITK 7
125 RAMY	12	1522	1542	1526	N13	E31	.516	13225	15.3	20	-F	4	C		.37				DE 5
126 WEND	12	1605	1617		N05	E36	.586	13225	15.4	12	-N								5
GRP61137	13	0908	0950	0908	N09	E22	.372	13225	15.0	42	-B				.63				2 1 1 9
LOCA	13	0908E	0950	0908	N09	E22	.372	13225	15.0	420	-B		V	0908	.63	.70			
KHAR	13	0920E	09550	0922	N08	E23	.388	13225	15.1	350	-N		C	0922	1.39	1.50			DTZ
139 RAMY	13	1132	1148	1138	S10	E21	.456	13224	15.1	16	-F	3	C		.28				DE 6
148 MANI	14	0601	0607	0604	N08	E17	.290	13225	15.5	6	-F	2		0604	.62	.65			H 6
160 TEHR	15	0635E	06490	0638	N04	W01	.059	13225	15.2	140	-F	2	C		.28				5
161 ABST	15	0758E	09150	0807	S11	W05	.324	13224	15.0	200	-F		P	0807	1.26	1.30			EZ 6
162 ARCE	15	0910E	09200		N11	W04	.095	13225	15.1	100	-F		C	0915	.37	.40			4
163 HUAN	15	1234	1238	1235	S12	W07	.349	13224	15.0	4	-F	1	C	1235	.21	.22			D 6
165 HJAN	15	1313	1318	1314	S12	W07	.349	13224	15.0	5	-N	2	C	1314	.31	.33			5
167 HJAN	15	1437	1441	1438	S12	W08	.355	13224	15.0	4	-F	1	C						4
168 HUAN	15	1501	1507	1505	S12	W08	.355	13224	15.0	6	-N	2	C	1505	.46	.50			5
169 HJAN	15	1512	1514	1513	N10	W09	.162	13225	15.0	2	-F	2	C						5
171 RAMY	15	1654	1704	1656	N10	W11	.195	13225	14.9	10	-F	3	C		.37				DE H 4
179 TEHR	16	0343	0348	0345	S09	W16	.386	13224	15.0	5	-N	3	V		.25				F 3
183 ARCE	16	0830E	08300		N10	W20	.342	13225	14.9		-F		C	0830	.56	.60			8
189 MCMA	16	1405	15000	1411	S11	W24	.500	13224	14.8	550	-F		C	1411	1.55	1.70			FL 5
190 PALE	16	1635E	16050	1636	N07	W20	.339	13225	15.2	900	-N	3	C		.99				Z F 5
196 TEHR	17	0940	1002	0946	N08	W27	.450	13225	15.4	22	-N	4	C		.37				F 7
GRP61197	17	1050	1125	1057	N07	W32	.526	13225	15.1	35	-F				1.08				2 2 2 8
UPIC	17	1050	1125		N07	W30	.496	13225	15.2	35	-F		P	1106	1.26				IT
ABST	17	1053E	11170	1057	N06	W33	.542	13225	15.0	240	-F		P	1057	.90	1.00			DJ
GRP61199	17	1145	1200	1150	N08	W30	.496	13225	15.2	15	-F				.61				2 2 2 7
TEHR	17	1140	1201	1146	N07	W28	.466	13225	15.4	21	-F	4	C		.37				
UPIC	17	1150	1159	1154	N08	W31	.511	13225	15.2	9	-F		P	1154	.85				IT
200 TEHR	17	1225	1236	1232	N08	W24	.404	13225	15.7	11	-F	4	C		.25				5
201 TEHR	17	1243	1249	1247	N09	W29	.481	13225	15.4	6	-F	4	C		.17				6
202 TEHR	17	1326	1340	1331	N12	W29	.485	13225	15.4	14	-F	4	C		.17				7
204 BJUL	17	1613	1645	1622	N12	W32	.528	13225	15.3	33	-F		C	1622	.21	.25			4
210 MANI	17	2312E	2319	2313U	S11	W37	.657	13224	15.2	70	-F	1		2312	.83	1.09			F 4
212 MANI	18	0107E	0113	0107U	S16	W33	.643	13224	15.6	60	-N	1		0107	.21	.27			4
216 ATHN	18	0749	0801	0752	S11	W56	.854	13232	14.1	12	-F	1		0752	.52	.64			8
218 HJR3	18	1019	1044	1030	N10	W38	.611	13225	15.6	25	1N						2.97		ID 6
220 MONT	18	1432	1444	1434	N35	W49	.752	13225	14.9	12	-F		C	1434	.21				5
226 ATHN	19	1105	1118	1108	N03	W58	.847	13225	15.1	13	-F	1		1108	.34	.45			3
227 ATHN	19	1144E	1153	1148	N33	W58	.847	13225	15.1	90	-F	1		1148	.34	.45			4

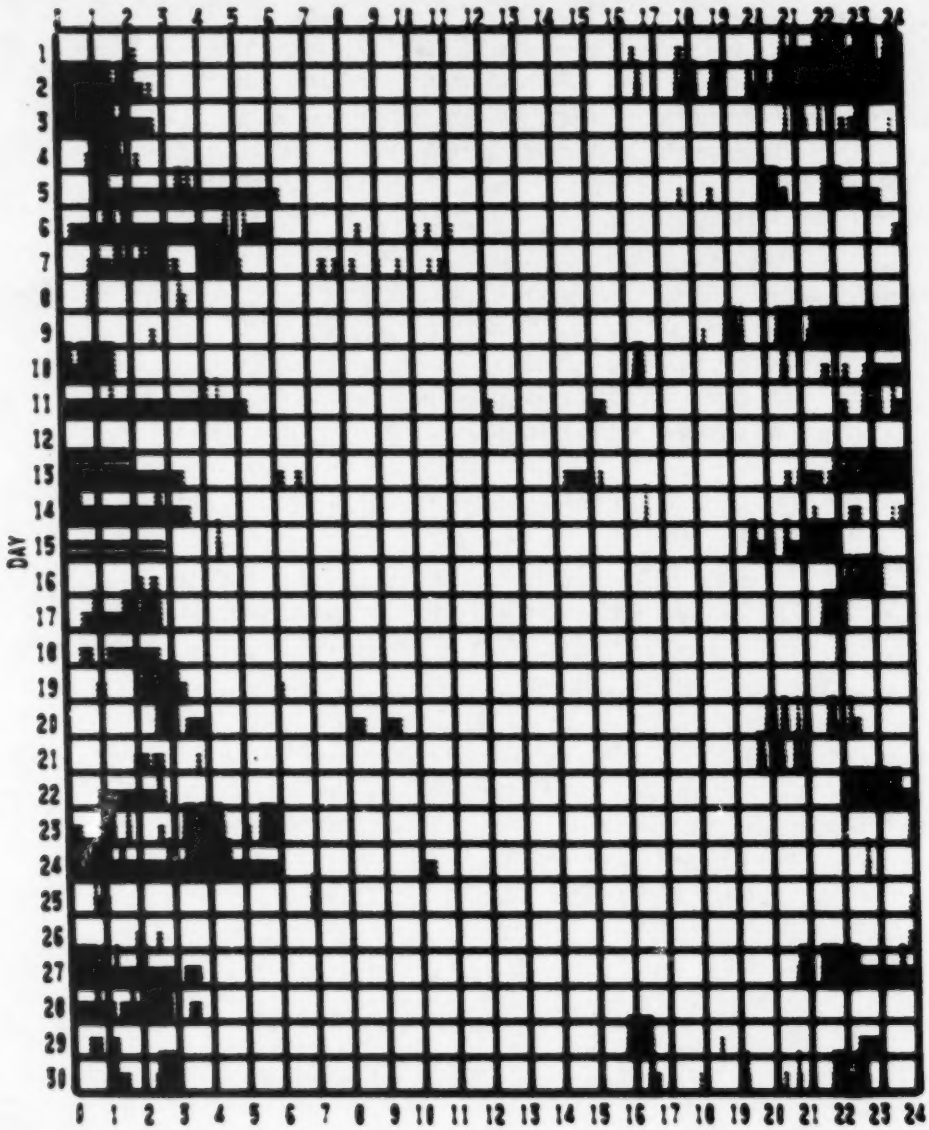
Hα SOLAR FLARES
Unconfirmed
SEPTEMBER 1974

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	NOAA PLAGE REGION	CMP DAY	MIN.				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
228 BOUL	19	1810	1837	1815	S11	W63	.908	13224	15.0	27	1F		C	1815	1.07	2.38			3
232 TACH	20	0318E	0334D	0318	N09	W66	.908	13225	15.2	16D	1N		V	0318	2.73			69	E 2
235 KHAR	20	1102E	1115D		N07	W75	.963	13225	14.8	13D	1F		C	1104	1.13				DT 5
241 KHAR	21	0915E	0930D		N37	W87	.998	13225	14.9	15D	1N		C						T 4
242 KHAR	21	1125E	1140D		S10	W87	1.000	13224	15.0	15D	1B		C						6
246 BOUL	21	2325	2345	2334	N12	W90	1.000	13225	15.2	20	1F		C	2334	.64	2.63			2
247 ABST	22	0651E	0734	0656	N14	W90	1.000	13225	15.5	43D	1F		P	0656	.90				ADG 5
248 HJAV	22	1147E	1159		N17	W90	.999	13225	15.7	12D	-F	1	P	1156	.31				4
251 HJAV	22	1355	1414	1357	N17	W90	.999	13225	15.8	19	-F	1	C	1357	.31				D 4
253 UPIC	23	1200E	1206U		N37	W90	1.000	13225	16.8	6D	1N		P	1200	.42				A 4
254 ATHN	23	1239E	1244	1239	S14	W66	.932	13233	18.6	5D	-F	1		1239	.17	.29			3
257 TEHR	25	1109	1120	1111	S11	E85	.998	13257	31.8	11	-F	3	C		.19				5
258 HUAN	26	1839	1847	1843	N11	E90	1.000	13262	2.5	8	-F	1	C						5
259 HUAN	26	1900	1908	1905	N11	E90	1.000	13262	2.5	8	-F	1	C						5
260 MANI	27	0313E	0321	0313U	N35	E89	1.000	13262	2.8	8D	-N	1		0313	.41	1.31			4
GRP61261	27	0954	1009	1004	S02	E90	1.000	13263	4.2	15	-F				.31				1 1 1 6
HTPR	27	0954	1009	1004	S02	E90	1.000	13263	3.2	15	-F		C	1004	.31				
HTPR	27	0954	1009	1004	S32	E90	1.000	13263	3.2	15	-F		C	1004	.31				
GRP61262	27	1058	1104	1059	N13	W31	.517	13250	25.1	6	-F				.33				2 2 2 7
TEHR	27	1055E	1100	1057	N13	W28	.473	13250	25.4	5D	-F	3	V		.25				
TEHR	27	1056E	1106D	1056U	N14	W30	.505	13250	25.2	10D	-F	3	C		.19				F
HTPR	27	1100	1102	1101	N12	W33	.544	13250	25.0	2	-F		C	1101	.41	.50			E
HTPR	27	1100	1102	1101	N12	W33	.544	13250	25.0	2	-F		C	1101	.41	.50			E
263 ABST	27	1220E	1224	1220	S15	W85	.999	13239	21.1	4D	1F		P	1220	.81				BD 6
265 HJAV	27	1413	1420	1416	S05	E90	1.000	13263	3.3	7	-F	1	C	1416	.21				D 7
266 HJAV	27	1435	1459	1443U	S05	E90	1.000	13263	3.4	24	-F	1	C	1443	.21				D 6
267 HJAV	27	1559	1608D		S05	E90	1.000	13263	3.4	9D	-F	1	P	1606	.21				D 3
268 MANI	28	0019	0048	0023	N13	W38	.614	13250	25.2	29	-N	2		0023	1.03	1.33			F 1
269 ABST	28	0841	0900	0843	S06	E74	.966	13263	2.9	19	1F		C	0843	.99			68	DJK 6
271 HUAN	28	1853	1857	1854	N07	E68	.923	13262	2.9	4	-F	1	C	1854	.26				D 4
272 HJAV	28	1943E	2000		N09	E90	1.000	13274	4.6	17D	-F	1	P						3
276 MANI	29	0130	0155	0145	S05	E66	.920	13263	3.0	25	-F	2		0145	.72	1.49			F 4
277 MANI	29	0335	0353	0339	S06	E64	.907	13263	2.9	18	-F	2		0339	.41	.83			F 3
279 TEHR	29	0552	0604	0556	S16	E68	.946	13272	3.3	12	-F	4	C		.17				6
GRP61280	29	0554	0604	0558	S08	E68	.936	13263	4.3	10	-F				.62				2 2 2 6
ATHN	29	0554	0602	0556	S09	E69	.943	13263	3.4	8	-F	3	V		.33				DE
ABST	29	0553E	0605	0559	S07	E67	.929	13263	3.3	6D	-N		P	0559	.90			92	BDJ
281 ABST	29	0626	0633	0628	S04	E61	.882	13263	2.8	7	-F		C	0628	.72	1.60		59	DJ 7
282 ABST	29	0634	0643	0638	S07	E66	.922	13263	3.2	9	-F		C	0638	.90			89	DJ 7
283 ABST	29	0709	0722	0711	S08	E66	.924	13263	3.2	13	1F		C	0711	.90			94	DJ 9
284 ABST	29	0756	0818	0801	N05	E90	1.000	13274	5.1	22	1F		C	0801	.63			56	ADG 9
287 TEHR	29	0933	0948	0939	S17	E67	.942	13272	3.4	15	-F	4	C		.19				6
288 TEHR	29	1003	1012	1005	S05	E63	.899	13263	3.1	9	-F	4	C		.28				F 4
293 TEHR	29	1248	1259	1254	N14	W58	.842	13250	25.2	11	-N	4	C		.19				F 5
295 HUAN	29	1350E	1355D		N08	E88	.999	13274	5.2	5D	-F	1	P	1355	.26				D 6
309 ATHN	30	0807	0820	0809	N14	W26	.447	13270	28.4	13	-F	1		0809	.34	.33			4

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

SEPTEMBER 1974



Observatories included in total patrol:

Abastumani	Catania	Kharkov	McMath-Hulbert	Ramey
Arcetri	Haute-Provence	Kiev	Meudon	Tachkent
Athenes	Herstmonceux	Kodaikanal	Mitaka	Teheran
Boulder	Huancayo	Locarno	Monte Mario	Upice
Bucharest	Hurbanovo	Manila	Palehua	Wendelstein
				Voroshilov

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1974

SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
1	650	GORK	1	0714.7	0714.8	.3	15.0			
	200	GORK	6	0714.8	0715	.5	100.0	30.0		
	100	GORK	6	0714.5	0715.1	1.2	80.0			
2	18	MCMA	6	1456	1457	2				
	18	MCMA	41	2146	2154	17			1	
	18	MCMA	6	2305	2306	2			1	
	18	MCMA	41	2316	2322	23			1	
									1	
4	930	BORD	45	0722	0722.5	1	8.0	2.0		
5	930	BORD	5	1254	1254.6	1	13.0	2.0		
	2800	OTTA	27AF	1910		180	.8	0.7		
	2800	OTTA	24	1910	1930	20	.8	0.4		
	2800	OTTA	24P	1930		150	.8			
	2800	OTTA	20	1930	1940	40	.8	0.6		
	2800	OTTA	26	1600	1610	10	- .8	-0.4		
	2695	PENT	20	2310	2332	80	1.4	0.7		
6	29	UPIC	45	0746	0746	8				
	29	UPIC	45	0844	0847	5				
	113	POTS	41	0845.6	0852.6	8	800.0	10.0		
	100	GORK	41	0845.2	0846	9	130.0D			
	100	GORK		0845.2	0848.1		130.0D			
	100	GORK		0845.2	0853.1		130.0D			
	260	ONDR	45	0852	0853	2.5	25.0			
	200	GORK	41	0852.7	0853.2	3	50.0			
	188	KIEV	6	0852.5	0853	2.2	59.0			
	29	UPIC	45	0852	0853	5				
	221	ARST	41	0854	0854.2	.8	14.0			
	100	GORK	44	0900		60 D		5.0		
	29	UPIC	45	0915		6.5				
	100	GORK	41	0918	0918.2	3.5	100.0			
	100	GORK		0918	0920.1		3000.0			
	188	KIEV	6	0919.5	0920	1	29.0			
	113	POTS	45	0919.2	0919.4	.7	600.0	60.0		
	29	UPIC	45	1110	1122	16				
	113	POTS	40	1120.9	1120.9	2	140.0	1.0		
	29	UPIC	5	1214.5	1215.5	1.5				
	2800	OTTA	20	1500	1517	30	1.8	0.9		
	4995	ROUL	8	1743	1745	2.5	15.0	4.0		
7	207	VORO	6	0127	0139	15		12.0		
	200	HIRA	45	0138.5	0138.8	1	55.0	20.0		
	100	HIRA	45	0138.8	0138.9	1	640.0	100.0		
	100	HIRA	45	0140.3	0140.8	1.5	300.0	50.0		
	207	VORO	6	0153	0154	5		9.0		
	200	HIRA	45	0154	0154.3	1.5	40.0	20.0		
	100	HIRA	45	0154	0154.2	2	340.0	70.0		
	100	GORK	6	0955.3	0955.4	.3	80.0	15.0		
	200	GORK	41	1014	1014.3	1.7	10.0			
	200	GORK		1014	1015		13.0			
	188	KIEV	41	1027.7	1034.5	25	80.0			
	100	GORK	6	1027.9	1028.2	.5	70.0	14.0		
	221	ARST	6	1034	1034.2	.5	16.0			
	200	GORK	6	1034.2	1034.4	1	35.0			
	100	GORK	6	1034.2	1034.4	.5	80.0D			
	29	UPIC	45	1034	1034.5	1.5				
	100	GORK	6	1048	1049 U	2.7	80.0D			
	29	UPIC	45	1048	1050.5	4				
	188	KIEV	41	1128.7	1139.5	25.8	53.0			
	260	ONDR	44	1137	1300	149	35.0			
	29	UPIC	5	1150.5	1150.5	.5				
	29	UPIC	45	1248.5	1300	3				
	245	SGMR	6	1259.5	1259.7	1.1	29.0	5.8		
	113	POTS	45	1259.6	1259.6	.5	350.0	35.0		
	410	SGMR	43	1309	1443.3	595 D	15.6			
	536	ONDR	45	1310	1326	120	40.0			
	245	SGMR	43	1320.2	1510.3	583.8D	94.7			
	188	KIEV	43	1350 E		130 D	120.0	28.0		
	200	HIRA	44	2020 E	2316	387 D	35.0	15.0		
	207	VORO	44	2200	2316	240		23.0		
	18	MCMA	6	1334	1336	2				
	260	ONDR	44	1400	1451.5	70	55.0		2	
	18	MCMA	6	1549	1550	2				
	18	MCMA	42	1715	1848	113			1	
	1420	ROUL	8	1859	1901.5	5	9.0	3.0	9	
	2695	ROUL	8	1900	1902	3.5	10.0	3.0		
	2695	SGMR	9	1900.9	1901.9	3.9	10.4	3.1		
	1415	SGMR	3	1900.9	1901.8	3.3	13.9	4.2		
	606	SGMR	1	1900.9	1901.8	2.1	4.4	1.3		
	410	SGMR	6	1900.5	1901.5	1.8	5.3	1.1		
	245	SGMR	6	1900.3	1901.5	5.7	236.7	47.3		
	18	ROUL	6	1900	1904	6				
	4995	SGMR	1	1901.2	1901.8	2.2	4.1	1.2	2	
	2800	OTTA	3	1901	1901.9	2.7	10.8	2.8		
	1415	PALE	3	1901.3	1901.7	2.2	13.1	4.8		
	2800	OTTA	20	1903.2	1903.2	17	1.0	0.5		
	2695	PENT	25	2110	2345	155	4.0	2.0		
	2800	OTTA	20	2210	2213.5	10	1.6	0.8		

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SEP 1974	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	1420 BOUL	45	2259	2305	10	11.0	5.0		
	2695 PENT	21	2300	2310	45	3.4	1.9		
	2695 BOUL	21	2300	2306.5	25.5	12.0	3.0		
	2000 TYKW	5	2300	2305.2	10	11.0	4.0		
	1415 MANI	22	2300	2305.1	20.8	16.3	4.8		
	1415 PALE	4	2300.3	2305.2	10.7	13.8	4.2		
	1000 TYKW	45	2300	2305	8	24.0	8.0		
	606 MANI	22	2300	2313.7	27.2	22.2	9.7		
	18 MCMA	41	2302	2304	3			1	
	9400 TYKW	5	2303	2310	30	4.0	2.0		
	4995 MANI	1	2303.5	2306	6.5	4.6	1.7		
	2695 PENT	1	2303.5	2305	4	6.8	3.4		
	2695 MANI	1	2303.5	2305.2	7.3	8.0	2.7		
	500 HIRA	5	2303.8	2314	17	18.0	2.0		
	1000 TYKW	29	2308		30	2.0	1.0		
	2000 TYKW	29	2310		60	2.0	1.0		
	2695 PENT	24P	2346		105 D	4.0			
8	260 ONDR	41	0653	1348	487	20.0			
	188 KIEV	42	0743		360 D	27.0	19.0		
	100 GORK	44	0945		60		5.0		
	245 SGMR	44	1019 E	1533.8	763 D	23.3			
	536 ONDR	45	0848	0848.5	1	45.0			
	536 ONDR	45	0923.5	0927.5	6	40.0			
	18 MCMA	41	1442	1443	2				
	18 MCMA	41	1620	1624	7			1	
	18 BOUL	6	1621	1623	4			2	
	18 MCMA	41	1709	1710	2			1	
	2800 OTTA	20	1920	1940	40	.8	0.4	1	
	18 MCMA	41	1950	1951	2				
	4995 BOUL	3	2102.5	2107.5	10	10.0	3.0	1	
	2800 OTTA	24	2105	2130	25	1.2	0.6		
	2695 PENT	27A	2105		240	1.2	1.1		
	15400 SGMR	4	2113.9	2116.3	7.7	23.0	6.9		
	10700 PENN	3	2114.9	2118.1	10.7	21.3	7.2		
	8800 PALE	22	2114.6	2117.8	12.7	22.2	13.3		
	2700 PENN	1	2114.8	2118.1	10.8	3.6	1.7		
	1420 BOUL	3	2114	2117	7.5	4.0	1.0		
	1415 SGMR	4	2114.8	2117.8	6.9	20.0	6.0		
	2800 OTTA	2	2115	2118	8	3.4	1.7		
	2695 BOUL	3	2115	2118	7	4.0	1.0		
	1415 PALE	3	2115.3	2117.8	4	14.1	4.2		
	606 SGMR	2	2116.3	2118.9	5.1	3.6	1.1		
	2695 PENT	24P	2130		190	1.2			
	18 MCMA	42	2143	2146	66			2	
	500 HIRA	5	2255.5	2255.5	.5	390.0	130.0		
	9400 TYKW	5	2300	2320	70	10.0	4.0		
	3750 TYKW	5	2300	2320	70	5.0	2.0		
	2000 TYKW	5	2300	2320	60	2.0	1.0		
	2695 PENT	21	2305	2318	85	4.6	2.3		
	2695 PENT	1	2310	2311	3	1.8	0.9		
9	2695 PENT	28	0040	0105	25	-1.2	-0.6		
	207 VORO	6	0043	0044	2		17.0		
	100 HIRA	45	0043.5	0044	1	620.0	100.0		
	3750 TYKW	5	0230	0240	30	2.0	1.0		
	3750 TYKW	5	0400	0445	70	3.0	1.0		
	100 GORK	6	0641.2	0646	5	50.0			
	260 ONDR	44	0642	1000	510	35.0			
	188 KIEV	42	0700 E		390	94.0	22.0		
	245 SGMR	43	1346.5	1834.2	553.5D	17.3			
	207 VORO	44	2200	0100	240		8.0		
	200 GORK	6	0645.7	0646	.5	60.0			
	221 ABST		0711.2	0711.5	1	19.0	6.0		
	3100 CRIM	41	0732	0735	5	7.0	2.0		
	3100 CRIM	24	0817			4.0			
	950 GORK	4	0948.8	0949.1	1.6	54.0			
	29 UPIC	45	0953		10.5				
	221 ABST		0954.5	0955.8	1.5	32.0	10.0		
	100 GORK	41	0955.3	0955.4	6.5	50.0			
	100 GORK		0955.3	0958.1		50.0			
	207 IZMI	41	0957.9	1000	2.6	55.0			
	808 ONDR	45	0958.5	0959	1.5	110.0			
	650 GORK	4	0958.6	0959.4	1.6	34.0			
	536 ONDR	45	0958.5	0959.5	7	70.0			
	200 GORK	41	0958	0958.1	2.2	30.0			
	200 GORK		0958	0959.8		35.0			
	188 KIEV	6	0958	1000.2	4	160.0			
	3000 BERL	1	0959.2	0959.5	.4	.9			
	1470 BERL	4	0959	0959.5U	1	26.0U			
	9240 ARCE	22	1040.2	1153.6	88				
	650 GORK	3	1050.5	1050.7	.5	10.0	5.0		
	100 GORK	41	1051.8	1053.7	18	400.0D			
	100 GORK		1051.8	1055.2		400.0D			
	100 GORK		1051.8	1107		30.0D			
	200 GORK	41	1052.6	1052.7	2.9	10.0			
	29 UPIC	45	1052.5	1053.5	4				
	245 SGMR	6	1054.3	1055.2	1.9	23.8	7.1		
	207 IZMI	6	1055	1055.2	.5	30.0			
	188 KIEV	6	1055	1055.8	2.5	99.0			

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SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	2800	OTTA	27	1140		58	1.8	1.6		
	2800	OTTA	24	1140	1148	8	1.8	0.9		
	2800	OTTA	24P	1148		42	1.8			
	245	SGMR	6	1222.7	1223.1	.9	7.1	2.1		
	29	UPIC	45	1222	1222.5	2				
	2800	OTTA	26	1230	1238	8	-1.8	-0.9		
	29	UPIC	45	1304	1304.5	1.5				
	245	SGMR	6	1305	1305.5	.7	3.1	.9		
	410	SGMR	6	1309.8	1310.1	.9	4.8	1.4		
	245	SGMR	6	1309.1	1310.2	2.2	2.9	.9		
	2800	OTTA	25	1430	2350	560	16.2	8.1		
	9240	ARCE	1	1536.7	1538.6	2.2				
	2800	OTTA	20	1605	1615	35	.9	0.5		
	8800	PALE	46	1714.3	1719.8	44.2	400.0	120.0		
	4995	BOUL	45	1714.5	1719.5	48.5	102.0	22.0		
	10700	PENN	45	1715.9	1720	8.8	277.0	79.1		
	9240	ARCE	46	1715.4	1720.2	10				
	9240	ARCE		1715.4	1720.2	5.1				
	8800	SGMR	4	1715 U	1719.9	42.1U	64.6	38.8U		
	4995	SGMR	4	1715 U	1719.9	41.8U	28.7	17.2U		
	2700	PENN	45	1715.7	1719.9	9	50.9	16.0		
	2700	PENN	24	1715.7	1724.7		7.3			
	2695	SGMR	4	1715 U	1720	60.4U	19.2	11.5U		
	15400	SGMR	4	1716.5	1719.9	35.5	73.2	43.9		
	7000	SAOP	4	1716.2		5	74.7D			
	2800	OTTA	4	1716	1720	10	51.0	12.8		
	2695	BOUL	45	1716.5	1721	33	49.0	14.0		
	1420	BOUL	3	1717	1720	10	7.0	2.0		
	1415	PALE	22	1718.6	1719.9	21.2	10.4	6.2		
	1415	SGMR	1	1719.2	1720.4	4	4.1	1.2		
	9240	ARCE		1720.5	1720.8	4.9				
	10700	PENN	29	1724.7	1724.7	58.4	23.2	11.6		
	2700	PENN	29	1724.7	1724.7	29.3	9.1	4.5		
	2800	OTTA	29	1726	1726	90	7.4	3.7		
	18	WCMA	42	1729	1736	9				
	960	PENN	8	1741	1741.1	.8	12.3		2	
	960	PENN	8	1843.2	1843.2	.6	8.6			
	18	WCMA	6	1956	1957	3			1	
	8800	PALE	45	2112.4	2115.6	31.6	106.1	21.2		
	4995	BOUL	8	2112.5	2115	6	38.0	13.0		
	18	WCMA	42	2113	2122	17			1	
	15400	SGMR	4	2114.7	2115.7	4.2	65.7	19.7		
	10700	PENN	45	2114.9	2115.7	38.7	89.6	7.8		
	2800	OTTA	2	2114.5	2115.5	3.5	9.0	5.0		
	2700	PENN	45	2114.9	2115.1	17.7	34.5	2.8		
	1420	BOUL	8	2114.5	2115.5	5	26.0	10.0		
	1415	SGMR	4	2114.9	2115.5	4.6	41.1	12.3		
	2695	BOUL	8	2115.5	2116	3.5	20.0	7.0		
	1415	PALE	41	2115	2115.5	14.6	39.2	7.8		
	960	PENN	45	2115.1	2115.7	3.6	16.6	1.0		
	2800	OTTA	30	2118	2118	55	3.8	1.9		
	2800	OTTA	2	2122.5	2124.6	3	3.8	1.3		
	100	HIRA	45	2231	2231.4	1	1000.0	400.0		
	2695	BOUL	3	2235	2237	4.5	3.0	1.0		
	2695	PENT	24P	2350		100 D	16.2			
10	9400	TYKW	5	0032	0034	8	6.0	2.0		
	3750	TYKW	5	0032	0034	8	2.0	1.0		
	1000	TYKW	45	0136	0136.3	1	3.0	1.0		
	1000	TYKW	5	0141	0142.3	7	3.0	1.0		
	9400	TYKW	45	0224	0248.3	60	27.0	4.0		
	3750	TYKW	45	0224	0248.3	60	8.0	2.0		
	2000	TYKW	45	0230	0246.7	40	7.0	1.0		
	100	GORK	44	0356 E		544 D		10.0		
	260	ONDR	44	0636	1352	514	70.0			
	188	KIEV	44	0700 F	1438.5	480 D	255.0	24.0		
	245	SGMR	44	1021 E	1944.5	757 D	23.4			
	410	SGMR	43	1359.4	2002.5	538.6D	10.4			
	207	VORO	44	2200	0100					
	100	HIRA	45	0410.5	0411.2	1	350.0	8.0		
	100	GORK	6	0410.3	0411.2	1.3	20.0D	100.0		
	1415	ATHN	3	0547.7	0548.6	3	13.5	4.1		
	200	GORK	41	0639.5	0640.6	5	45.0			
	200	GORK		0639.5	0643.8		50.0			
	113	POTS	41	0711.1	0712.3	39	200.0	1.0E		
	100	HIRA	45	0711	0712.6	2.5	900.0	100.0		
	200	GORK	41	0714.7	0714.9	1.6	20.0			
	200	GORK		0714.7	0715.8		15.0			
	221	ABST	6	0721	0721.2	.5	31.0			
	221	ABST	6	0726.2	0726.5	.5	19.0			
	100	HIRA	45	0731.9	0732.2	1	360.0	50.0		
	200	GORK	6	0740.2	0740.3	.6	240.0	120.0		
	100	HIRA	45	0740	0740.3	2	180.0	30.0		
	9100	GORK	22	0833.2	0921.2	117	5.2	2.0		
	113	POTS	45	0842	0842	.1	600.0	200.0		
	100	GORK	6	0842.2	0842.5	.6	60.0D			
	221	ABST		0855.2	0855.8	2	19.0	6.0		
	100	GORK	6	0855.4	0855.8	2.5	50.0D			
	100	GORK	41	0920.4	0920.8	7.9	50.0D			
	100	GORK		0920.4	0928		50.0D			

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SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
10	100	GORK	41	1030.9	1031.2	10.7	50.0D			
	100	GORK		1030.9	1041.7		50.0D			
	100	GORK	41	1123.3	1127.6	32.5	600.0			
	100	GORK		1123.3	1138.7		50.0D			
	100	GORK		1123.3	1154.9		50.0D			
	9240	ARCE	22	1125.8	1320.2	210				
	113	POTS	45	1125.1	1127.2	4.3	600.0	5.0		
	113	POTS	45	1154.3	1154.5	.4	300.0	40.0		
	9500	BERL	22	1205	1237.2	38	10.0			
	100	GORK	41	1212	1212.6	9.8	50.0D			
	100	GORK		1212	1221.5		50.0D			
	3000	BERL	20	1215	1242	90	2.4			
	7000	SAOP	1	1231.5		5.6	5.5	2.2		
	8800	SGMR	4	1236.9	1237.4	6.2	11.8	3.5		
	100	GORK	41	1236.5	1249.1	18.6	50.0D			
	100	GORK		1236.5	1254.6		50.0D			
	410	SGMR	6	1257.9	1309.7	12.4	7.9	2.4		
	245	SGMR	6	1257.9	1309.9	12.9	35.8	7.2		
	2800	OTTA	20	1302	1316.5	46	7.4	2.5		
	29	UPIC	45	1302	1302.5	8				
	113	POTS	40	1303.2	1309.8	6.8	300.0	6.0		
	7000	SAOP	20	1312.8		24.1	9.9			
	4995	ATHN	40	1312.9	1319.2	13.9	12.8	3.8		
	15400	SGMR	4	1313.8	1318	15.8	12.2	3.7		
	10700	PENN	20	1313	1321.1	26.2	9.7	4.8		
	9500	BERL	22	1313	1319.2	37	13.0			
	8800	SGMR	22	1313.9	1323.9	18	6.9	2.0		
	8800	ATHN	40	1313	1319.2	14	10.9	3.3		
	2700	PENN	20	1313	1316.8	29	9.1	3.5		
	3000	BERL	3	1314	1316.5	19	8.9			
	1415	ATHN	40	1314.9	1318.7	5.7	3.4	1.0		
	4995	SGMR	4	1315.7	1318.2	13.4	11.1	3.3		
	2695	SGMR	22	1315.7	1316.9	19	6.8	2.0		
	1470	BERL	20	1315	1334	22	1.5			
	2800	OTTA	20	1347	1358	45	1.8	0.9		
	410	SGMR	6	1351	1352.1	4.1	12.5	3.8		
	245	SGMR	6	1351	1352.2	4	79.4	23.8		
	113	POTS	40	1351.4	1351.9	3	250.0	12.0		
	29	UPIC	45	1351.5	1352	3				
	18	MCMA	42	1414	1421	17			1	
	29	UPIC	45	1417.5	1427.5	11.5				
	113	POTS	40	1419.6	1419.8	8	400.0	8.0		
	8800	SGMR	4	1438.6	1439.4	2.2	12.7	3.8		
	18	MCMA	42	1510	1521	18			3	
	245	SGMR	7	1511.7	1517	16.5	361.0	72.2		
	606	SGMR	41	1515.3	1517.2	6.8	14.2	4.3		
	410	SGMR	6	1515.2	1517	12.6	69.2	13.8		
	29	UPIC	45	1515	1517	14				
	930	BORD	45	1520	1520	1	11.0	2.0		
	930	BORD	45	1532	1532.2	1	17.0	2.0		
	8800	SGMR	4	1533.7	1536.7	18.2	10.8	3.2		
	18	MCMA	42	1612	1629	32			3	
	18	ROUL	42	1617	1628	26			2	
	29	UPIC	45	1624	1627	4.5				
	606	SGMR	41	1625	1636.5	12.4	13.5	4.1		
	410	SGMR	6	1626.2	1630.2	12.3	14.1	4.2		
	245	SGMR	6	1626.2	1629.5	18.2	220.2	66.0		
	18	MCMA	6	1709	1710	2			1	
	2800	OTTA	240	1740	1800	20	1.8	0.9		
	18	MCMA	41	1754	1800	8			1	
	2800	OTTA	240	1800		180 D	1.8			
	410	SGMR	49	2045.4	2200.5	132.6D	22770.0	7130.0U		
	245	SGMR	49	2045.8	2143.4	132.2D	3850.0	770.0U		
	1415	SGMR	47	2055.5	2158.1	122.5D	13600.0	2720.0U		
	2700	PENN	45	2107						
	2800	OTTA	28	2108	2122	18.5	9.6	4.0		
	1420	ROUL	47	2108	2200.5	219.5D	1833.0	236.0		
	2695	ROUL	47	2109.5	2155.5	218 D	2068.0	220.0		
	10700	PENN	47	2110	2140.4	71.6	5110.0	1048.0		
	960	PENN	45	2114						
	1415	PALE	47	2121.7	2156.1	203.2	13000.0	3800.0		
	606	SGMR	47	2121.4	2159.7	96.6D	31500.0	6300.0U		
	8800	SGMR	47	2123	2140.3	95 D	3813.0	1143.0U		
	8800	PALE	47	2123.6	2140.8	196.9	9700.0	5000.0		
	4995	SGMR	4	2123.6	2140.3	94.4D	469.0	141.0U		
	4995	ROUL	47	2124	2146.5	156	767.0	252.0		
	200	HIRA	45	2125	2136 D	185	180.0D	100.0D		
	2800	OTTA	47	2126.5	2147	52.5	2520.0	940.0		SPIKE=2673
	500	HIRA	49	2126	2140.5	23	9500.0	1600.0		
	9400	TYKW	47	2130 E	2140.7	90 D	9000.0	1200.0U		
	3750	TYKW	47	2130 E	2146.5	120 D	3560.0	570.0U		
	3750	TYKW		2130 E	2141.3		5400.0			
	2000	TYKW	47	2130 E	2157.9	130 D	9750.0	550.0U		
	1000	TYKW	47	2130 E	2141.8	340	1550.0	300.0U		
	2695	SGMR	4	2131.6	2137.3	36.4D	179.0	53.7U		
	35000	SGMR	47	2132.2	2140	35.8D	4055.0	811.0U		
	15400	SGMR	47	2132.2	2140	85.8D	6944.0	1389.0U		
	100	HIRA	45	2135	2150	205	1000.0D	590.0D		
	500	HIRA	49	2149	2200 U	117	11500.0	2100.0		
	18	MCMA	42	2149	2155	10			2	

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	8800	MANI	40	2150 E		194.5D		130.0D		SUNRISE
	4995	MANI	40	2150 E		194.5D		177.0D		SUNRISE
	2695	MANI	40	2150 E		192.7D		464.0D		SUNRISE
	1415	MANI	47	2150 E	2157.7U	194.5D	12500.0U	1200.0D		SUNRISE
	606	MANI	47	2150 E	2158.2U	236 D	17000.0U	2300.0D		SUNRISE
	2930	VORO	47	2205 E		215				
	18	MCMA	6	2210	2212	3			1	
	2800	OTTA	30	2219	2219	190 D	245.0			
	2800	OTTA	3	2228.5	2229	1	38.0	19.0		
	9400	TYKW	29	2300		240	90.0	25.0		
	100	HIRA	45	2316.4	2322 U	11.5	1000.0D	300.0D		
	100	HIRA	45	2318.5	2319 U	2.5	1000.0D	600.0D		
	18	MCMA	41	2318	2326	8			1	
	207	VORO		2321	2325	7		79.0		
	2695	PENT	4	2323	2324	2	19.0	9.5		
	207	VORO		2329	2330	8		10.0		
	3750	TYKW	29	2330		210	30.0	10.0		
	2930	VORO	29	2340	2340.5	1	10.0			
	2000	TYKW	29	2340		200	25.0	10.0		
	500	HIRA	29	2346	2349	57.5	40.0	10.0		
11	500	HIRA	48	0043.5	0047.3	57.5	640.0	110.0		
	200	HIRA	45	0049	0049.5	1.3	350.0D	150.0D		
	100	HIRA	45	0117	0117.5	1	220.0	60.0		
	100	HIRA	45	0119.8	0120.4	1.5	250.0	100.0		
	100	HIRA	45	0137	0138.6	9	1000.0D	200.0D		
	500	HIRA	29	0151	0223	54	15.0	5.0		
	100	HIRA	45	0151	0152.9	6.5	950.0	120.0		
	100	HIRA	45	0255.4	0255.5	1	500.0	140.0		
	100	HIRA	45	0413	0414	2.5	400.0	100.0		
	100	HIRA	45	0426.8	0428.2	4	390.0	100.0		
	606	MANI	22	0433	0643.3	205	58.0	19.2		
	100	HIRA	45	0441.5	0443	5.5	780.0	100.0		
	500	HIRA	27	0443.6	0515.5	65	20.0	3.0		
	1000	TYKW	45	0448	0519.7	53	9.0	3.0		
	100	HIRA	45	0508	0508.2	5	900.0	200.0		
	100	HIRA	45	0516	0516.8	2.2	170.0	70.0		
	100	HIRA	41	0558	0636.4	43	1000.0D			
	29	UPIC	45	0603.5	0605.5	8				
	1000	TYKW	45	0608	0646	55	13.0	3.0		
	500	HIRA	27	0618	0705	95	6.0	2.0		
	29	UPIC	45	0620	0620.5	2.5				
	808	ONDR	45	0637	0739.5	83	65.0			
	536	ONDR	44	0637	0740	93	85.0			
	260	ONDR	44	0637	0817	293	45.0			
	188	KIEV	44	0700 E		480 D	278.0	28.0		
	29	UPIC	44	0732.5		282.5				
	410	SGMR	44	1022 E	2248.3	755 D	203.2			
	245	SGMR	44	1022 E	2214.5	755 D	204.9			
	260	ONDR	44	1130	1417.5	220	100.0			
	536	ONDR	44	1250	1338.5	140	55.0			
	606	SGMR	43	1313.6	2250.2	583.4D	196.8			
	18	BOUL	42	1710	1727	770			1	
	1415	SGMR	43	1830.5	2239.9	266.5D	19.5			
	200	HIRA	44	2020 E	2315	745 D	150.0	60.0		
	100	HIRA	44	2020 E	2020	458	200.0	50.0		
	113	POTS	40	0637.1	0639.6	3.7	3500.0	70.0		
	29	UPIC	45	0638	0639.5	3				
	29	UPIC	45	0732.5	0733	1.5				
	113	POTS	5	0748.1	0748.2	.1	200.0	70.0		
	29	UPIC	45	0804	0812.5	17				
	221	ABST	40	0808.2	0811.2	10.2	8.0	4.0		
	536	ONDR	41	0810	1038	280	50.0			
	113	POTS	41	0810.3	0832.2	27	1400.0	7.0		
	100	HIRA	45	0810	0811.4	9	1000.0D	150.0D		
	234	POTS	41	0813.5	0817.2	19	100.0	1.0E		
	29	UPIC	45	0830	0832	10.5				
	221	ABST		0831.5	0831.8	1	17.0	7.0		
	100	HIRA	45	0831.5	0833.5	4	1000.0D	100.0D		
	29	UPIC	45	0919	0922	11				
	930	BORD	40	0923	0958.8	47	11.0	3.0		
	808	ONDR	45	0923	0959	47	80.0			
	113	POTS	45	0923.1	0923.2	.3	450.0	20.0		
	29	UPIC	45	0942	0943.5	2				
	113	POTS	41	0943.8	0944.1	8.7	200.0	4.0		
	29	UPIC	45	1000		52.5				
	113	POTS	45	1003.1	1003.2	.7	200.0	40.0		
	113	POTS	40	1045.8	1048	2.4	300.0	7.0		
	29	UPIC	45	1058	1105.5	11				
	113	POTS	40	1135.8	1138.8	4.4	350.0	17.0		
	29	UPIC	45	1135	1138	12				
	207	IZMI	41	1138	1139	1.3	100.0			
	29	UPIC	45	1158.5	1209.5	16.5				
	7000	SAOP	1	1201.9		1.2	8.9	4.5		
	9240	ARCE	1	1202	1202.5	1.8				
	234	POTS	45	1218.3	1218.6	.3	130.0	20.0		
	2800	OTTA	20	1327	1345	70	1.2	0.6		
	113	POTS	45	1330.5	1341.1	15	10000.0	70.0		
	29	UPIC	45	1330	1342	16				
	18	MCMA	42	1400	1412	17			1	

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11	29	UPIC	45	1412	1412.5	1.5				
	2800	OTTA	24P	1545	1550	15	3.0	1.6		
	1420	BOUL	3	1522	1522.5	2.5	1.0			
	2800	OTTA	24P	1550		330	3.0			
	2695	PENT	20	1640	1650	20	1.4	0.7		
	18	BOUL	42	1640	1644	9			1	
	18	MCMA	42	1642	1649	20			2	
	2695	SGMR	20	1708	1711.8	15.5	5.5	2.2		
	4995	SGMR	1	1710.1	1711.9	5.5	3.8	1.5		
	2800	OTTA	20	1710	1712	18	4.6	1.3		
	2700	PENN	20	1710.4	1712	10.7	4.6	1.2		
	2695	BOUL	3	1710.5	1713	5.5	7.0	2.0		
	18	MCMA	42	1711	1716	23			2	
	4995	BOUL	3	1736	1739	3.5	11.0	3.0		
	7000	SAOP	1	1737.6		6.5	6.8	3.4		
	2700	PENN	1	1737.8	1739.7	5.2	1.8	0.5		
	15400	SGMR	1	1738.7	1739.4	1.3	9.2	3.7		
	10700	PENN	1	1738.4	1739.7	3.4	5.8	1.1		
	8800	SGMR	1	1738.8	1739.5	1.9	8.1	3.2		
	4995	SGMR	1	1738.4	1739.6	2.7	5.7	2.3		
	2800	OTTA	20	1738	1739.5	16	1.8	0.9		
	2695	SGMR	1	1739.1	1739.6	1.2	3.3	1.3		
	2695	BOUL	3	1739.5	1740	2.5	2.0	1.0		
	10700	PENN	1	1833.8	1834.4	3.1	7.8	2.0		
	18	MCMA	41	1833	1836	3			?	
	8800	SGMR	3	1834.1	1834.4	4.7	13.5	4.1		
	4995	SGMR	1	1834.3	1834.4	1	1.8	.5		
	2800	OTTA	27A	1845		145	1.4	1.3		
	2800	OTTA	24	1845	1850	5	1.4	0.7		
	2800	OTTA	24P	1850		130	1.4			
	10700	PENN	20	1854.6	1857.5	14.3	3.9	2.0		
	2695	SGMR	1	1854	1855.6	2.7	4.6	1.4		
	4995	SGMR	1	1855	1857.4	4.8	4.4	1.6		
	2800	OTTA	20	1855	1907	25	1.8	0.9		
	18	BOUL	42	1908 E	2038	92 D			?	
	8800	SGMR	1	1911.6	1911.9	1	8.1	2.4		
	2695	BOUL	3	1949	1952	7	2.0	1.0		
	18	MCMA	6	1950	1952	3			2	
	18	MCMA	42	2024	2041	17			3	
	2800	OTTA	26	2100	2110	10	-1.4	-0.7		
	500	HIRA	27	2100	2252	240	210.0	50.0		
	2800	OTTA	24OP	2120	2220	60	2.2	1.1		
	1000	TYKW	45	2130 E	2250.7	280 D	27.0	12.0U		
	606	MANI	22	2151	2252.2	292	109.0	36.8		
	207	VORO	48	2200	2211	80	71.0			
	2800	OTTA	24P	2220		160 D	2.2			
	18	MCMA	41	2227	2230	13			2	
12	1470	BERL	3	1240 E	1240					
	950	GORK	20	0400 E	0401.1	118	17.0			
	650	GORK	20	0400 E	0508.3U	124.5	12.0	6.0		
	200	GORK	44	0400 E		120		35.0		
	100	GORK	44	0400 E		420 D		10.0		
	200	GORK	44	0600		300 D		5.0		
	260	ONDR	44	0638	1250.5	512	155.0			
	221	ABST	44	0700	0700.2	240	8.0			
	207	IZMI	44	0700		300	75.0			
	188	KIEV	44	0700 E		480 D	286.0D	75.0		
	29	UPIC	44	0757	1131	344				
	410	SGMR	44	1023 E	1908	752 D	110.6			
	245	SGMR	44	1023 E	1132	752 D	481.7			
	650	GORK	20	0616.7	0618.8	10.3	3.0			
	536	ONDR	41	0640	0724	120	50.0			
	650	GORK	21	0645	0718.3	50.2	13.0	5.0		
	950	GORK	20	0648	0652.9	21.5	4.4	2.0		
	100	GORK	41	0706.6	0707.2	30.5	100.0			
	100	GORK		0706.6	0718.5U		100.0D			
	100	GORK		0706.6	0721.9U		100.0D			
	100	GORK		0706.6	0723.8U		100.0D			
	100	GORK		0706.6	0732.5U		100.0D			
	29	UPIC	45	0706	0719	29				
	650	GORK	3	0713.1	0713.1	.2	15.0	7.0		
	950	GORK	20	0714.5	0719	10	4.5	2.0		
	1415	MANI	1	0716.5	0719.3	6	4.4	1.3		
	113	POTS	40	0716.4	0723.9	8.3	700.0	14.0		
	100	HIRA	41	0716	0724.2	20	1000.0D			
	606	MANI	40	0717.5	0723.8	7.9	23.0	4.3		
	200	GORK	41	0717.5	0718.2	19.5				
	200	GORK		0717.5	0722					
	200	GORK		0717.5	0724					
	200	GORK		0717.5	0732.5					
	200	GORK		0717.5	0735.1					
	650	GORK	3	0723.6	0723.8	.5	20.0	7.0		
	234	POTS	45	0734.9	0735	.2	300.0	50.0		
	100	GORK	6	0748.6	0750.2U	2.7	100.0D			
	200	GORK	6	0749.5	0749.9	1.1	35.0			
	113	POTS	45	0749.8	0750.1	.7	300.0	60.0		
	234	POTS	40	0753.7	0754.2	1.2	600.0	20.0		
	221	ABST	49	0753.8	0806.5	19.2	85.0	28.0		
	950	GORK	20	0754	0831	43	4.5	2.0		

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12	650	GORK	20	0756	0830.5	34	9.0			
	6100	KISV	3	0843.5	0845	6	2.0			
	6100	KISV	3	0900.5	0903	7	4.0			
	100	GORK	6	0918	0919.5	2.1	500.0			
	113	POTS	45	0931.3	0932.7	2.1	450.0	35.0		
	100	GORK	6	0931	0932.4	3.9	500.0			
	29	UPIC	45	0932.5	0934	P				
	234	POTS	45	1011.9	1012.2	1	175.0	20.0		
	100	GORK	6	1029.7	1031.3	2.5	450.0			
	29	UPIC	45	1029	1029.5	2.5				
	113	POTS	45	1030	1031.2	1.7	350.0	20.0		
	100	GORK	41	1037.5	1038	1.9	500.0			
	100	GORK		1037.5	1038.9		300.0			
	29	UPIC	45	1102	1105	6				
	29	UPIC	45	1124	1131	10.5				
	8800	SGMR	3	1129.9	1130	.2	13.3	4.0		
	4995	SGMR	1	1129.9	1130	.2	8.8	3.5		
	9240	ARCE	3	1130	1130.1	1				
	2695	SGMR	3	1130	1130	.3	11.8	3.5		
	113	POTS	40	1130	1130	3.7	42000.0	700.0		
	234	POTS	40	1138.6	1138.6	.1	175.0	6.0		
	234	POTS	40	1152.1	1156	4.4	250.0	3.0		
	9240	ARCE	21	1159.2	1213.6	134				
	9240	ARCE	2	1226.8	1227	2				
	9240	ARCE	1	1229.4	1229.6	1.6				
	10500	BERN	3	1239.3	1240.4	12				
	15400	SGMR	3	1240.4	1240.5	.4	12.7	3.8		
	10700	PENN	3	1240.1	1240.7	17.6	23.5	10.3		
	9500	BERL	4	1240	1240.5	15	27.0	6.5		
	9240	ARCE	3	1240.1	1240.7	1.3				
	8800	SGMR	4	1240	1240.5	7.1	36.3	10.9		
	7000	SAOP	4	1240		3.5	15.8	7.9		
	4995	SGMR	2	1240.3	1240.5	5	8.8	3.5		
	3000	BERL	3	1240.7	1241	.8	9.1	3.5		
	9240	ARCE	29	1241.4	1242.1	15.4				
	7000	SAOP	29	1243.5		1.6				
	10700	PENN	1	1310.7	1311.4	1.8	3.9	1.7		
	18	MCMA	41	1507	1509	8				
	18	MCMA	6	1520	1525	5			2	
	18	MCMA	41	1712	1714	6			3	
	18	MCMA	41	1750	1753	11			1	
	7000	SAOP	8	1829.2		1	7.9		2	
	18	MCMA	42	1840	1850	13				
	2800	OTTA	27A	1900		245	1.8	1.7	3	
	2800	OTTA	24	1900	1926	20	1.8	0.9		
	18	MCMA	6	1901	1905	12			3	
	4995	SGMR	20	1902.8	1907.7	13.4	7.0	4.2		
	8800	SGMR	20	1903.7	1907.7	15.5	19.6	11.8		
	8800	PALE	3	1904.8	1908	11	11.0	6.4		
	2800	OTTA	2	1904.8	1908	13	8.0	3.0		
	2700	PENN	20	1904.8	1908.9	16.4	11.0	3.2		
	1420	BOUL	3	1904	1907	16	4.0	1.0		
	960	PENN	45	1904.8	1906.2	11	19.9	2.3		
	606	SGMR	4	1904.1	1905.7	9.2	55.4	16.6		
	10700	PENN	20	1905	1908.3	14	11.9	5.9		
	4995	BOUL	21	1905.5	1908.5	14	11.0	4.0		
	2695	SGMR	22	1905	1908.9	22.5	8.2	4.9		
	2695	BOUL	3	1905	1908.5	7	9.0	3.0		
	1415	SGMR	22	1905.4	1907	12.6	5.7	3.4		
	1415	PALE	1	1905.3	1908.3	5.2	5.7	1.7		
	7000	SAOP	20	1906.2		3.3	5.7			
	245	SGMR	48	1906	1908	7.3	778.6	155.7		
	2800	OTTA	24P	1920		210	1.8			
	200	HIRA	44	2020 E	0610	745 D	200.0	110.0		
	100	HIRA	44	2020 E	2215	745 D	1000.0D	85.0		
	2800	OTTA	20	2030	2048	45	1.4	0.7		
	2695	PENT	26	2250	2305	15	-1.8	-0.9		
	207	VORO	44	2300	0130	180		40.0		
13	1000	TYKW	45	0130	0240.3	120	9.0	2.0		
	2930	VORO	40	0224	0232	9	95.0			
	650	GORK	22	0400 E	0610.7	470	68.0			
	650	GORK		0400 E	0855.2		35.0			
	200	GORK	44	0402 F		271 D		70.0		
	100	GORK	44	0430 F		537 D		60.0		
	260	ONDR	44	0640		512	235.0D			
	221	ABST	44	0700	0808	240	40.0			
	207	IZMI	44	0700		300	80.0			
	29	UPIC	44	0714		382.5				
	410	SGMR	44	1024 E	1437.1	749 D	30.4			
	245	SGMR	44	1024 E	1221.5	749 D	503.7			
	200	GORK	44	1106 E		66 E		60.0		
	200	HIRA	44	2020 E	0536	745 D	65.0	30.0		
	100	HIRA	44	2020 E	0619	745 D	800.0	50.0		
	207	VORO	44	2200	0200	240		82.0		
	500	HIRA	27	0420	0610.5	220	54.0	10.0		
	950	GORK	22	0424	0610.6	322	43.0			
	950	GORK		0424	0855.3		37.0			
	1415	MANI	22	0429.9	0624.4	146	13.8	5.5		
	606	MANI	22	0429.7	0608.8	173.3	64.0	22.6		

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13	2000	TYKW	5	0430	0700	230 D	8.0	4.0U		
	1000	TYKW	45	0436	0610.3	230 D	29.0	8.0U		
	9400	TYKW	5	0440	0700	220 D	20.0	12.0U		
	3750	TYKW	5	0440	0700	220 D	8.0	4.0U		
	3100	CRIM	24	0545	0628		17.0			
	6100	KISV	20	0722	0723	5	3.0			
	930	BORD	40	0747	0856	128	30.0	7.0		
	234	POTS	41	0748	0807	41	700.0	40.0		
	606	MANI	22	0751.4	0901.6	76.9D	14.9U	3.8U		SUNSET
	536	ONDR	45	0800	0854	80	50.0			
	228	HARS	45	0806	0808	3	1150.0	110.0		
	808	ONDR	45	0807.5	0855	73	90.0			
	221	ABST	49	0807	0807.5	8.8	126.0	38.0		
	29	UPIC	45	1014		27				
	113	POTS	41	1018.2	1019.3	19	1400.0	5.0		
	100	GORK	41	1018.2	1022.2	20	550.0D			
	100	GORK		1018.2	1037		550.0D			
	234	POTS	41	1115.1	1117.6	6.3	550.0	2.0		
	950	GORK	20	1139	1139.7	12	4.0	2.0		
	29	UPIC	45	1212		32				
	100	GORK	6	1213.5	1214.6	2.5	550.0			
	234	POTS	41	1221	1236	27	450.0	2.0		
	100	GORK	6	1232.3	1234.7	6	550.0D			
	113	POTS	45	1234.1	1234.6	1.2	300.0	30.0		
	8800	SGMR	3	1439.3	1440.7	3.7	13.8	4.1		
	9240	ARCE	3	1440.3	1440.8	2.7				
	4995	SGMR	1	1440.5	1440.7	.3	4.8	1.4		
	260	ONDR	45	1450	1500	5	220.0			
	1420	BOUL	45	1454.5	1557.5	155.5D	429.0	46.0		
	2695	SGMR	4	1456.9	1459.9	10.1	61.7	18.5		
	1415	SGMR	4	1456.6	1459.9	9.2	114.4	34.3		
	3000	BERL	21	1457.5		93 D				
	3000	BERL	4	1457.5	1459.7	7.5	54.0			
	2695	BOUL	45	1457.5	1527	162.5D	211.0	20.0		
	1470	BERL	21	1457.5		93 D				
	1470	BERL	4	1457.5	1459.7	6				
	15400	SGMR	4	1458	1459.5	5	60.5	18.1		
	10700	PENN	3	1458.3	1526.2	72.7	98.5	49.9		
	10500	BERN	46	1458.1	1458.9	8				
	9500	BERL	21	1458	1557.5	92 D	54.0			
	9500	BERL	4	1458	1459.3	5.5	74.0			
	9240	ARCE	23	1458.6	1556.6	100 D				
	9240	ARCE	4	1458.6	1459.5	6.5				
	8800	SGMR	4	1458.3	1459.4	8.5	96.1	28.8		
	7000	SAOP	45	1458.5	1526	132.7	113.8	31.5		
	4995	BOUL	45	1458	1520	131	130.0	19.0		
	4995	SGMR	4	1458	1459.4	8.2	90.7	27.2		
	2800	OTTA	46	1458	1526	87	390.0	83.0		
	2800	OTTA		1458	1459.5	10	48.0			
	2800	OTTA	25	1458	2120	382	3.7	1.8		
	2700	PENN	45	1458.4		75.2	120.0D			
	960	PENN	45	1458.3			230.0D			
	930	BORD	45	1458	1558	92	1197.0	131.0		
	808	ONDR	45	1458	1459.5	3	670.0			
	606	SGMR	46	1458.3	1459.6	8.7	473.0	123.4		
	606	SGMR	46		1500		189.8			
	606	SGMR	46		1558		173.0			
	536	ONDR	45	1458	1459	3	155.0			
	510	POTS	45	1458	1459	80	90.0	15.0		
	410	SGMR	6	1458.2	1459.5	4.8	99.2	29.8		
	245	SGMR	48	1458.1	1459.8	4.9	684.0	205.0		
	228	HARS	45	1458	1459.5	4	1000.0	750.0		
	113	POTS	45	1458	1459	74	14000.0	100.0		
	29	UPIC	45	1458		4				
	18	MCMA	6	1459	1503	7			3	
	2800	OTTA		1508	1526	29	390.0			
	2695	SGMR	46	1508.9	1525.9	91.1	326.9	98.1		
	2695	SGMR	46		1556.9		151.0			
	1415	SGMR	47	1508.9	1526.3	83.1	210.0	290.0		
	1415	SGMR	47		1556.8		970.0			
	15400	SGMR	20	1510.3	1526	159.8	59.4	29.7		
	4995	SGMR	45	1510.6	1525.8	59.7	224.6	67.4		
	4995	SGMR	45		1556.8		88.8			
	606	SGMR	46	1510.2	1517.2	55.2	50.4	51.9		
	410	SGMR	6	1510.5	1558.5	201.6	95.8	28.7		
	245	SGMR	6	1510	1557.7	151.8	103.6	31.1		
	8800	SGMR	46	1511.2	1525.9	57.8	127.4	38.2		
	8800	SGMR	46		1557		64.9			
	10500	BERN	45	1513.7	1515.2	4				
	18	MCMA	42	1513	1515	15			2	
	9240	ARCE	2	1514.9	1515.5	1				
	29	UPIC	45	1514	1522.5	28				
	3000	BERL	46	1520	1525.5		278.0			
	1470	BERL	46	1520	1526		232.0			
	10500	BERN		1521.3	1526.3	14				
	9500	BERL	3	1521	1526.2	13	102.0			
	9240	ARCE	4	1521.8	1525.9	14				
	2800	OTTA		1537	1541.5	8	144.0			
	18	MCMA	6	1540	1543	5			2	
	2800	OTTA		1545	1557	40	170.0			

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	10700	PENN	29	1611	1611	91.3	47.3	23.6		
	2700	PENN	29	1613.6	1613.6	61.9	18.9	9.4		
	2800	OTTA	30	1625	1625	295	24.0	8.0		
	2800	OTTA	1	1626	1628.5	6	3.2	1.6		
	7000	SAOP	29	1711.2		59.9				
	18	BOUL	6	2018	2023	6			2	
	18	MCMA	41	2019	2023	9			3	
	2800	OTTA	24P	2120		240 D	3.7			
	18	MCMA	42	2151	2155	59			2	
	2695	PENT	20	2330	2340	35	1.4	0.7		
	9400	TYKW	5	2338	2338.8	3	9.0	3.0		
	3750	TYKW	5	2338	2339	4	2.0	1.0		
	2000	TYKW	5	2338.5	2338.8	1	4.0	1.0		
	1000	TYKW	45	2338	2338.7	2	2.0	0.4		
14	9400	TYKW	45	0247	0249	10	8.0	2.0		
	3750	TYKW	5	0256	0301	15	2.0	1.0		
	100	GORK	44	0350 E		430 D		40.0		
	200	GORK	44	0400 E		270		10.0		
	260	ONDR	44	0642	1348	558	170.0			
	29	UPIC	44	0642		389				
	221	ABST	44	0700	1011.5	240	7.0			
	410	SGMR	44	1026 E	1352.1	745 D	18.2			
	245	SGMR	44	1026 F	1429.3	745 D	183.1			
	18	MCMA	42	1427	1453	270			2	
	18	BOUL	42	1635	1906	240			2	
	18	MCMA	42	1900	2150	222			2	
	200	HIRA	44	2020 F	0250	745 D	100.0	70.0		
	100	HIRA	44	2020 E	0127	745 D	950.0	130.0		
	207	VORO	44	2200	0200	240		10.0		
	3750	TYKW	5	0454	0500	40	3.0	1.0		
	100	GORK	6	0512.5	0513.6	3.2	500.0			
	9400	TYKW	5	0528	0531	30	6.0	2.0		
	100	GORK	6	0538.3	0540.7	3.9	500.0D			
	100	GORK	41	0559.5	0600	19	500.0D			
	100	GORK		0559.5	0618.5		500.0D			
	100	GORK	6	0641.3	0643.7	12.5	500.0D			
	200	GORK	6	0645	0649.5	5.7	175.0			
	650	GORK	1	0648.8	0649.7	1.3	2.2	1.0		
	113	POTS	5	0740.1	0740.1	.1	1700.0	600.0		
	9240	ARCE	30	0745.6	0817.8	49				
	113	POTS	5	0745.2	0745.2	.1	600.0	200.0		
	6100	KISV	45	0800	0801.7	5	5.0			
	3100	CRIM	1	0801	0802	6	6.0	2.0		
	9100	GORK	1	0812.8	0813.5	3.2	5.8	2.9		
	8800	ATHN	3	0812.8	0813.4	3.2	10.9	3.3		
	6100	KISV	45	0812	0814	5	12.0			
	4995	ATHN	1	0813.4	0814	4	4.2	1.3		
	9100	GORK	1	0817.5	0818	1.5	4.4	2.2		
	100	GORK	41	0846.2	0847.2	14	400.0			
	100	GORK		0846.2	0851.8		400.0			
	100	GORK		0846.2	0900		400.0			
	650	GORK	1	0849.6	0849.7	.2	1.5	0.7		
	6100	KISV	45	0942	0945.5	10	6.0			
	9240	ARCE	20	1029.4	1038.2	27.5				
	221	ABST	48	1030.5	1031.5	4.5	21.0	7.0		
	9100	GORK	20	1036	1037.5	9.5	9.8	4.3		
	8800	ATHN	3	1036.7	1038	5	11.5	3.5		
	29	UPIC	45	1226.5		6				
	15400	SGMR	1	1228.9	1229.2	.7	9.6	2.9		
	8800	SGMR	1	1228.8	1229.2	.8	5.6	1.7		
	4995	SGMR	1	1228.2	1228.5	.6	2.0	.6		
	2695	SGMR	1	1228.2	1229.2	1.4	2.1	.6		
	1470	BERL	4	1228	1228.5	1	10.0	4.2		
	1415	SGMR	4	1228.4	1228.7	1.2	12.8	3.8		
	606	SGMR	1	1228.7	1228.9	.4	2.2	.7		
	113	POTS	40	1228.2	1228.8	4.2	1400.0	60.0		
	410	SGMR	6	1341.2	1342.1	1.6	9.1	1.8		
	245	SGMR	6	1341.2	1342.6	2.8	127.4	25.5		
	234	POTS	40	1347.2	1349.3	2.7	250.0	8.0		
	18	MCMA	6	1355	1356	2			1	
	18	MCMA	41	1411	1413	4			1	
	10700	PENN	1	1504.8	1505.1	2.4	3.9	1.0		
	606	SGMR	41	1832	1832.3	36.1	23.4	7.0		
	2800	OTTA	20	1900	1906	20	1.4	0.7		
	2800	OTTA	21	1945	1949	20	1.8	0.9		
	2695	BOUL	3	1948.5	1951	6.5	4.0	1.0		
	2800	OTTA	8	1950	1950	.5	1.0	0.5		
	2695	PENT	240	2325	2335	10	1.4	0.7		
	2695	BOUL	3	2334.5	2336.5	3	5.0	2.0		
	2695	PENT	24P	2335		80 D	1.4			
	2695	PENT	1	2335	2336	1.5	4.6	1.6		
	2695	PENT	29	2336.5	2336.5	10	.8	0.4		
15	500	HIRA	27	0230	0351	150	36.0	3.0		
	606	MANI	22	0318.5	0351.8	78.2	24.0	12.8		
	200	GORK	44	0406 E		415 U				
	100	GORK	44	0406 F		414 D		100.0		
	260	ONDR	44	0648	1440	395	90.0			
	207	IZMI	44	0700		300	55.0			

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15	29	UPIC	44	0737		457				
	245	SGMR	44	1027 E	2049.1	743 D	943.8			
	410	SGMR	43	1341.7	2215.1	548.3D	77.4			
	606	SGMR	43	1432.3	2212.1	497.7D	53.3			
	200	HIRA	44	2020 E	0430	745 D	250.0	170.0		
	100	HIRA	44	2020 E	0446	745 D	1000.0D	250.0D		
	207	VORO	44	2200	0200	240		100.0		
	4995	ATHN	2	0536.5	0538.3	6.8	4.2	1.3		
	9400	TYKW	45	0537	0538.2	5	21.0	7.0		
	8800	ATHN	4	0537.7	0538.2	4.7	23.8	7.1		
	536	ONDR	45	0742.5	0805.5	28	40.0			
	100	GORK	41	0834.8	0835.2	5	700.0			
	100	GORK		0834.8	0839		4500.0D			
	113	POTS	45	0838.8	0838.9	.9	5000.0	700.0		
	29	UPIC	45	0838	0839	3				
	606	MANI	2	0839.7	0840.3	2	6.1	2.6		
	29	UPIC	45	0905	0908.5	15				
	113	POTS	45	0908.6	0909.2	2.1	1300.0	130.0		
	100	GORK	41	0908.6	0910	8.6	7500.0			
	100	GORK		0908.6	0916.3		800.0D			
	29	UPIC	45	0938	0945	9				
	100	GORK	41	0939.7	0940	6.5	800.0			
	100	GORK		0939.7	0942.8		800.0			
	228	HARS	45	1017	1018	2.5	280.0	60.0		
	100	GORK	41	1022	1022.5	5	800.0			
	100	GORK		1022	1026		800.0			
	221	ABST	49	1025.2	1029.8	6.2	95.0	31.0		
	29	UPIC	45	1121	1122	18				
	234	POTS	45	1123.5	1123.6	.2	120.0	1.0		
	113	POTS	45	1123.1	1123.6	1.7	1000.0	50.0		
	207	IZMI	6	1136	1136.5	1	350.0	50.0		
	2800	OTTA	1	1242.5	1244	2.5	1.4	0.7		
	930	BORD	45	1326	1326.4	1	13.0	2.0		
	18	MCMA	6	1402	1404	4				
	18	MCMA	42	1434	1437	9			1	
	18	MCMA	42	1443	1507	25			1	
	536	ONDR	45	1444.5	1458	16	50.0		2	
	18	MCMA	6	1537	1538	2				
	4995	BOUL	8	1654.5	1656	3	14.0	5.0	1	
	10700	PENN	3	1655.8	1656.9	3.6	15.4	3.4		
	1420	BOUL	8	1655.5	1656	2	42.0	16.0		
	18	BOUL	6	1655	1658	4				
	7000	SAOP	3	1656.2		2.4	10.4	4.6	2	
	2800	OTTA	2	1656	1656.7	1	4.6	2.3		
	2700	PENN	3	1656	1656.5	2	17.0	1.4		
	2695	BOUL	8	1656.5	1657.5	2.5	15.0	6.0		
	960	PENN	45	1656	1656.8	2.6	46.0	2.8		
	930	BORD	45	1656	1656.5	1	88.0	15.0		
	18	MCMA	6	1657	1700	4				
	18	BOUL	42	1733	1748	20			2	
	18	BOUL	42	1810	1832	92			3	
	18	MCMA	41	1828	1833	6			2	
	2800	OTTA	8	1829.5	1829.5		1.4		3	
	18	MCMA	41	1838	1845	10				
	2800	OTTA	20	1850	1851	12	1.6	0.8	2	
	18	MCMA	6	1859	1902	4				
	18	MCMA	41	1931	1943	12			2	
	2800	OTTA	23	1950	2011	45	1.8	0.9	1	
	18	MCMA	41	1953	1954	4				
	18	BOUL	42	2006	2011	9			1	
	18	MCMA	41	2008	2011	3			1	
	2695	PENT	1	2009	2010	2	2.2	1.1	1	
	18	BOUL	42	2126	2128	10				
	18	MCMA	41	2129	2134	8			1	
	8800	PALE	3	2147.8	2148.6	4.8	11.0	3.4	1	
	1000	TYKW	45	2158	2211.2	23	10.0	1.5		
	2800	OTTA	1	2200	2201	2	2.8	1.4		
	2695	BOUL	3	2201	2201.5	1.5	4.0	1.0		
	8800	PALE	1	2205.8	2206.6	9	7.1	2.1		
	1415	PALE	1	2205.8	2207.5	9.5	3.8	1.2		
	1420	BOUL	45	2209.5	2211	13.5	3.0	1.0		
	606	MANI	40	2209.8	2212.1	5.9	53.0	21.8		
	2800	OTTA	23	2210	2213	37	4.6	2.3		
	2695	BOUL	45	2210.5	2212	10.5	8.0	2.0		
	2000	TYKW	45	2210	2217.2	11	7.0	1.5		
	500	HIRA	45	2210		6.		15.0		
	500	HIRA		2210	2212		35.0			
	500	HIRA		2210	2215		52.0			
	2800	OTTA	1	2211	2211.5	1	8.8	3.0		
	1000	TYKW	45	2239	2240.2	1.5	4.0	1.5		
	606	MANI	4	2337.7	2339.5	2.3	13.3	5.3		
	8800	PALE	3	2357.5	2358	4	16.0	4.8		
16	9400	TYKW	5	0040	0040.7	12	16.0	3.0		
	8800	PALE	3	0040.3	0040.6	3.2	22.0	6.6		
	606	MANI	2	0214.6	0215	3.2	5.1	1.0		
	1000	TYKW	45	0220	0233.4	25	32.0	1.0		
	2000	TYKW	5	0225	0234.7	17	2.0	0.5		
	606	MANI	40	0226	0234.5	10.7	39.7	5.1		
	3750	TYKW	5	0228	0232	14	2.0	1.0		

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SEP 1974	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
16	1415 MANI	41	0231.4	0231.7	4.5	4.1	1.4		
	4995 MANI	4	0233.6	0234.3	1.4	16.0	4.0		
	9400 TYKW	5	0234.4	0234.6	.6	6.0	2.0		
	3750 TYKW	5	0234.4	0234.6	.6	9.0	3.0		
	2695 MANI	2	0234.3	0234.5	.5	2.8	1.0		
	606 MANI	22	0302.5	0402.2	161.9	12.8	4.6		
	200 GORK	44	0404 E		416 D		70.0		
	100 GORK	44	0406 E		414 D		80.0		
	221 ARST	44	0700	0744	240	27.0			
	207 IZMI	44	0700		300	100.0			
	29 UPIC	44	0940	1108	214				
	260 ONDR	44	0951	1107	359	160.0			
	606 SGMR	44	1028 E	1515	470 D	52.6			
	410 SGMR	44	1028 E	1507.8	740 D	101.1			
	245 SGMR	44	1028 E	1333.4	740 D	462.4			
	200 HIRA	44	2025 E	2335	730 D	70.0	40.0		
	100 HIRA	44	2025 E	0158	730 D	350.0	30.0		
	207 VORO	44	2200	2224	240		32.0		
	100 GORK	6	0409.9	0412.1	3.6	2600.0			
	1000 TYKW	5	0438.6	0438.9	.8	3.0	1.0		
	950 GORK	1	0439	0439.2	.4	5.3	2.6		
	100 GORK	6	0443.1	0444.6	3	2600.0			
	606 MANI	4	0552	0552.3	.7	15.8	4.1		
	234 POTS	45	0629.9	0630.3	1.2	1000.0	50.0		
	6100 KISV	40	0631	0635.4	13	5.0			
	8800 ATHN	28	0748.6	0755.7	7.1	4.8	1.4		
	4995 ATHN	28	0748.5	0755.6	7.1	4.2	1.3		
	1415 ATHN	20	0748.3	0755.2	11.7	3.8	2.3		
	9240 ARCE	21	0749.7	0808.3	34				
	9500 BERL	21	0750	0756.2	23	27.0			
	3000 BERL	20	0750	0808	28	2.3			
	1470 BERL	21	0752	0808	25	4.7			
	10500 BERN	3	0755.8	0756.5	3				
	9400 TYKW	5	0755.7	0756.2	1.5	20.0	7.0		
	9240 ARCE	3	0755.9	0756.5	3.2				
	9100 GORK	3	0755.5	0756	3.5	22.0	11.0		
	8800 ATHN	3	0755.7	0756.2	6.9	25.9	7.8		
	6100 KISV	3	0755	0756.1	3	5.0			
	4995 ATHN	1	0755.6	0756.3	2.6	2.1	.6		
	3750 TYKW	5	0755.7	0756.2	1	10.0	1.0		
	2695 ATHN	1	0755.3	0756.3	3.6	4.3	1.3		
	4995 ATHN	40	0800.1	0808.3	10.4	3.1	.9		
	8800 ATHN	40	0802.6	0808.3	7.6	7.2	2.2		
	1415 ATHN	1	0805.3	0808.1	6.4	4.7	1.4		
	6100 KISV	3	0806.5	0807.9	3	4.0			
	536 ONDR	41	0931	1348	319	50.0			
	6100 KISV	41	1051	1100.3	17	8.0			
	9100 GORK	22	1054	1105.5	33	7.5	2.6		
	8800 ATHN	45	1054.7	1106.1	55.8	16.5	5.0		
	8800 ATHN	45		1122.6		12.0			
	9500 BERL	22	1055	1105.8	32	8.8			
	4995 ATHN	20	1056.2	1105.7	48.8D	8.4	5.0		
	3000 BERL	20	1058	1106.2	22	2.3			
	2695 ATHN	20	1058.3	1107.2	24.8	5.9	3.5		
	1415 ATHN	45	1058.8	1106.8	25.5	3.2	2.6		
	1415 ATHN	45		1122.3		4.3			
	1470 BERL	4	1121.5	1122	7.5	3.6	1.1		
	1415 SGMR	1	1121.9	1122.1	2.1	5.0	2.0		
	234 POTS	45	1228.8	1229	.5	250.0	25.0		
	2800 OTTA	8	1245.8	1246	.5	2.2	1.1		
	9240 ARCE	24	1247.1		140				
	2800 OTTA	23	1300	1510	555	14.2	7.4		
	2695 SGMR	20	1302.6	1525.1	327.4	13.5	8.1		
	4995 SGMR	20	1303.9	1525.1	326.1	24.4	14.7		
	1415 SGMR	22	1303.7	1508.7	341.2	22.0	13.2		
	3000 BERL	20	1304	1513	136 D	13.0			
	9500 BERL	20	1305	1512.5	135 D	18.0			
	1470 BERL	22	1305	1515	135 D	12.0			
	2700 PENN	20	1309	1525.1	300	13.6	7.8		
	10700 PENN	24	1313	1529.3		23.1			
	8800 ATHN	20	1324.3	1423.7	65.7D	22.5	13.5		
	1415 ATHN	20	1325.9	1421.2	64.1D	4.3	2.6		
	4995 ATHN	20	1328	1423.8	52 D	11.6	6.7		
	808 ONDR	45	1333	1333.5	1.5	135.0			
	8800 SGMR	20	1408.7	1531.8	261.3	24.5	14.7		
	15400 SGMR	20	1410	1546.7	260	26.0	15.6		
	808 ONDR	45	1430	1516	60	95.0			
	930 BORD	40	1440	1445	20	28.0	3.0		
	536 ONDR	45	1450	1514.5	40	90.0			
	1420 BOUL	45	1505	1508.5	14.5	9.0	1.0		
	930 BORD	40	1506	1516.6	18	28.0	5.0		
	2800 OTTA	2	1523	1525	4	5.4	1.8		
	2695 BOUL	8	1524.5	1526	2	5.0	2.0		
	18 MCMA	41	1713	1715	5			1	
	2695 BOUL	8	1740	1745	6.5	5.0	2.0		
	2800 OTTA	1	1742.5	1744	4	4.4	1.1		
	1420 BOUL	3	1743	1744	2	2.0	1.0		
	2800 OTTA	8	1846.7	1846.7		1.8			
	18 BOUL	6	1932	1933	2			1	
	2800 OTTA	20	2125	2133	35	1.2	0.7		

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SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	18	MCMA	42	2140	2146	79			3	
	18	MCMA	6	2344	2346	3			2	
17	3750	TYKW	45	0123	0128.4	8	5.0	2.0		
	2000	TYKW	45	0123	0128	7	2.0	1.0		
	9400	TYKW	45	0140	0154	25	8.0	3.0		
	3750	TYKW	45	0143	0154	22	3.0	1.0		
	2000	TYKW	45	0143	0153.2	17	2.0	1.0		
	606	MANI	1	0150.2	0150.4	.5	8.5	2.6		
	1000	TYKW	45	0152.5	0153.2	1.5	26.0	4.0		
	200	MIRA	45	0152	0152.8	2	350.0	100.0		
	207	VORO	6	0153	0153	1	62.0			
	3750	TYKW	5	0241	0246	15	2.0	1.0		
	9400	TYKW	5	0328	0329.1	10	20.0	6.0		
	3750	TYKW	5	0329	0329.2	1	3.0	1.0		
	200	GORK	44	0400 E		380 D		30.0		
	100	GORK	44	0400 E		300 D		30.0		
	260	ONDR	44	0640	0934	512	90.0			
	221	ABST	44	0700	0728.5	240	9.0	2.0		
	410	SGMR	44	1029 E	1444	737 D	42.6			
	245	SGMR	44	1029 E	1214.5	737 D	120.6			
	200	HIRA	44	2025 E	0235	730 D	80.0	35.0		
	207	VORO	44	2200	0241	240		23.0		
	9240	ARCE	21	0711.8	0801.4	81				
	6100	KISV	4	0715	0717.5	5	15.0			
	9500	BERL	4	0716.5	0718	24	38.0	5.1		
	3000	BERL	4	0716.5	0718	8.5	2.8			
	10500	BERN	3	0717.3	0718.6	4				
	9400	TYKW	5	0717	0718.1	3 U	30.0	10.0U		
	9240	ARCE	3	0717.5	0718.3	4.8				
	9100	GORK	4	0717	0718	5	39.0	19.0		
	8800	ATHN	3	0717.2	0718.2	3.8	47.4	14.2		
	4995	ATHN	1	0717.2	0718.2	3.7	7.7	2.3		
	3750	TYKW	5	0717	0718.3	3	3.0	1.0		
	2695	ATHN	3	0717.2	0718.3	1.8	17.2	5.2		
	221	ABST		0728.2	0729	2.2	28.0	9.0		
	100	GORK	6	0733.5	0734.2	2	40.0D			
	207	IZMI	41	0734.2	0735	1.7	150.0			
	29	UPIC	45	0734	0735	2				
	100	GORK	41	0844.3	0844.9	3.9	35.0			
	100	GORK		0844.3	0847.8		35.0			
	200	GORK	6	0847.5	0847.9	.6	300.0D			
	100	GORK	6	0854.1	0854.7	1.9	30.0			
	100	GORK	6	0942.9	0943.2	?	40.0	20.0		
	100	GORK	6	0949.8	0950.1	1.9	40.0	20.0		
	29	UPIC	45	0950.5	0951	1.5				
	29	UPIC	45	1001.5	1001.5	4.5				
	100	GORK	6	1004.6	1005.3	1.4	40.0	20.0		
	234	POTS	45	1036.4	1036.6	.4	200.0	30.0		
	100	GORK	6	1044	1045.3	1.5	500.0			
	29	UPIC	45	1044	1044.5	2				
	6100	KISV		1103	1105	5	5.0			
	8800	ATHN	1	1104.1	1104.7	3.5	4.6	1.4		
	4995	ATHN	1	1104.1	1104.7	2	3.3	1.0		
	9500	BERL	20	1105	1111.5	25	5.1			
	3000	BERL	20	1105	1109	25	2.3			
	1470	BERL	22	1105	1106	35	1.8			
	8800	ATHN	1	1110.1	1110.8	2.7	3.0	.9		
	29	UPIC	45	1114.5	1114.5	1.5				
	29	UPIC	45	1148.5	1154.5	14.5				
	29	UPIC	45	1228	1228	1.5				
	29	UPIC	45	1256.5	1259	8.5				
	29	UPIC	45	1315	1331	36				
	113	POTS	45	1331	1331	.2	700.0	175.0		
	29	UPIC	45	1357	1358.5	6				
	113	POTS	41	1411.8	1411.8	11	200.0	1.0E		
	29	UPIC	45	1412	1412	1				
	29	UPIC	45	1421	1421.5	2.5				
	18	MCMA	6	1421	1423	3				
	18	MCMA	6	1710	1714	4			1	
	18	MCMA	6	1741	1743	3			2	
	18	BOUL	6	1746	1747	2			1	
	18	BOUL	42	1753	1801	10			1	
	18	MCMA	42	1755	1802	8			2	
	606	SGMR	22	1757.2	1759	11.8	9.8	2.9	2	
	410	SGMR	6	1757.7	1759.4	2.3	17.5	5.2		
	2800	OTTA	2	1759	1759.5	1	2.0	0.5		
	2800	OTTA	23	1815	2015	275	5.8	2.9		
	2800	OTTA	8	1924.2	1924.2		2.0			
	4995	SGMR	22	2003.2	2009	28.1	12.2	3.6		
	410	SGMR	6	2004.9	2007.5	5.9	7.2	2.2		
	245	SGMR	6	2004.8	2006.3	4.8	155.0	46.5		
	18	BOUL	41	2006	2008	7				
	606	SGMR	2	2007.2	2007.5	5.2	9.8	2.9	1	
	18	MCMA	41	2007	2009	9			2	
	18	MCMA	42	2145	2223	60			3	
18	200	GORK	44	0401 E		479 D		30.0		
	100	GORK	44	0403 E		537 D		40.0		
	260	ONDR	44	0641	1022	511	90.0			

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SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
18	221	ARST	44	0700	0826	240	11.0			
	245	SGMR	44	1030 E	1851.6	734 D	115.2			
	100	HIRA	44	2025 F	2135	355 D	350.0	30.0		
	207	VORO	44	2200	2202	240		10.0		
	100	GORK	48	0445.7	0451.9	11.1	2000.0			
	100	GORK		0445.7	0453.5		2000.0			
	3750	TYKW	5	0450	0453.2	6	10.0	4.0		
	100	HIRA	45	0450	0453.3	7	600.0	120.0		
	9400	TYKW	5	0451	0453	5	3.0	1.0		
	200	HIRA	45	0451	0452	6	350.0	180.0		
	2000	TYKW	5	0452.9	0453.1	.5	4.0	1.0		
	1000	TYKW	45	0452	0453.2	5	6.0	1.0		
	950	GORK	41	0452.7	0453.6	3.3	5.8			
	950	GORK		0452.7	0455.5		6.6			
	650	GORK	40	0452.6	0454.9	3.7	17.0			
	650	GORK		0452.6	0455.5		16.5			
	606	MANI	4	0452.8	0454.9	4.1	13.3	4.8		
	1415	MANI	1	0454.3	0454.9	1.5	1.4	.5		
	3750	TYKW	29	0456		45	4.0	2.0		
	100	GORK	48	0515.1	0515.9	14.8	40.0			
	100	GORK		0515.1	0520.8		100.0			
	8800	ATHN	1	0530.7	0530.9	1	8.9	2.7		
	234	POTS	41	0632.4	0637.7	8.2	130.0	1.0E		
	228	HARS	45	0637	0638	2	170.0	45.0		
	9100	GORK	23	0650.5	0736	180 D	7.7			
	606	MANI	2	0705.5	0706.4	2.5	2.7	1.1		
	221	ABST		0705.2	0706.2	3.2	35.0	11.0		
	29	UPIC	45	0705.5	0706.5	3.5				
	4995	ATHN	1	0706.2	0707.2	2.2	6.6	2.0		
	9500	BERL	22	0710 U	0731	55	10.0			
	3000	BERL	22	0710 U	0731.2	55	6.9			
	1470	BERL	22	0710 U	0731	60	5.2			
	4995	ATHN	20	0717.4	0733.7	23.8	5.5	3.3		
	9240	ARCE	20	0733.5	0736	12				
	8800	ATHN	1	0733	0735.8	9.9	6.0	1.8		
	29	UPIC	45	0752	0753.5	2				
	100	GORK	48	0818.4	0821	17.2	600.0			
	100	GORK		0818.4	0822.4		660.0			
	221	ABST	49	0819.2	0824.5	9	36.0	11.0		
	9240	ARCE	20	0820.6	0825.5	27				
	9100	GORK		0820	0821.5		10.2			
	9100	GORK	45	0820	0825	16.5	11.4	4.8		
	29	UPIC	45	0821	0824.5	9.5				
	234	POTS	45	0823.4	0825.6	3.5	130.0	30.0		
	100	HIRA	45	0823	0825.1	7	200.0	70.0		
	4995	MANI	4	0824.6	0825.3	1.5	10.3	3.1		
	606	MANI	4	0824.3	0825.7	4.5	37.1	10.6		
	950	GORK	4	0825.5	0826.5	3.3	17.2	4.5		
	930	BORD	45	0825	0826	2	18.0	4.0		
	808	ONDR	45	0825	0826	2.5	75.0			
	650	GORK	4	0825.3	0826	3.7	31.0	9.4		
	536	ONDR	45	0825	0825.5	6.5	55.0			
	228	HARS	45	0825	0825.5	2	180.0	40.0		
	207	IZMI	6	0825	0825.8	1.3	190.0	100.0		
	3000	BERL	20	0850	0851.8	17	3.7			
	9500	BERL	1	0910	0910.5	1	5.2			
	9240	ARCE	20	0910.5	0911	10				
	9500	BERL	1	0915.5	0916.1	1	3.9			
	29	UPIC	45	0946	0946	2				
	9240	ARCE	1	0948.8	0948.7	1.4				
	29	UPIC	45	1004	1004.5	1				
	9240	ARCE	1	1008.5	1009.7	2.5				
	234	POTS	41	1014.9	1019	12	130.0	1.0E		
	29	UPIC	45	1030.5	1031	2.5				
	3000	BERL	46	1044	1110	151	50.0	14.0		
	9100	GORK	45	1045	1056.5		14.0			
	9100	GORK		1045	1110		6.0			
	9100	GORK		1045	1118		20.0			
	9100	GORK		1045	1121.5		24.0			
	100	GORK	41	1047.4	1100.9	37	650.0			
	100	GORK		1047.4	1110.7		6000.0			
	100	GORK		1047.4	1119.7		6000.0			
	29	UPIC	45	1047	1047.5	3				
	9500	BERL	21	1052	1121.5	173 U	18.0			
	4995	ATHN	20	1053.8	1056.5	13	28.6	17.2		
	2695	ATHN	20	1053.8	1056.5	10.3	26.0	15.6		
	1470	BERL	21	1053	1130	142	5.2			
	29	UPIC	45	1053 .	1058	9				
	9500	BERL	1	1054.5	1056.2	3.5	13.0			
	9240	ARCE	3	1054.1	1056.8	6				
	8800	ATHN	3	1054.5	1056.5	6.3	59.6	17.9		
	1415	ATHN	3	1054.5	1056.5	9.3	16.1	4.8		
	950	GORK	41	1054	1056.9	10.1	31.0			
	950	GORK		1054	1102.6		7.0			
	808	ONDR	45	1054.5	1056.5	4.5	100.0			
	650	GORK	41	1054	1056.9	10.4	26.0			
	650	GORK		1054	1101.1		2.2			
	650	GORK		1054	1102.5		3.7			
	536	ONDR	45	1054	1056	11	40.0			
	1470	BERL	4	1055.5	1056.2	2.5	9.6			

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18	930 BORD	45	1055	1056.6	4	31.0	7.0		
	29 UPIC	45	1107		18				
	10500 BERN	4	1108.6	1110.1	5				
	8800 ATHN	4	1108.9	1110.2	3.9	62.6	18.8		
	4995 SGMR	4	1108.7	1110.2	35.8	103.4	31.0		
	4995 ATHN	4	1108.8	1110.1	6.7	96.8	29.0		
	2695 SGMR	4	1108.8	1110.3	35.5	46.3	13.9		
	1470 BERL	46	1108.5	1110.7	18	60.0			
	1415 ATHN	4	1108.8	1110.4	7	86.8	26.0		
	930 BORD	45	1108	1110	18	108.0	10.0		
	808 ONDR	45	1108	1110	12	220.0			
	606 SGMR	46	1108.7	1110.2	24.5	288.0	57.6		
	606 SGMR	46		1110.3		218.2			
	245 SGMR	7	1108.5	1110.1	36.5	266.2	79.9		
	228 HARS	45	1108	1110	4	240.0	70.0		
	200 GORK	6	1108.7	1110.4	3	4000.0			
	9500 BERL	3	1109.5	1110.4	3	47.0			
	9240 ARCE	21	1109.3	1122.4	137				
	9240 ARCE	3	1109.3	1110.4	5 U				
	8800 SGMR	4	1109.2	1110.1	15.5	56.9	17.1		
	2695 ATHN	3	1109	1110.2	3.9	40.1	12.0		
	1415 SGMR	46	1109.1	1110	24.1	61.1	18.3		
	1415 SGMR	46		1110.5		48.5			
	950 GORK	46	1109	1110.4	18.2	95.0			
	950 GORK		1109	1115.9		35.0			
	950 GORK		1109	1117.8		18.0			
	650 GORK	46	1109	1110.5	18	148.0			
	650 GORK		1109	1115.7		22.0			
	650 GORK		1109	1118		15.0			
	650 GORK		1109	1122.9		16.5			
	536 ONDR	45	1109	1110	13	145.0			
	260 ONDR	45	1109	1110	4	225.0			
	207 IZMI	49	1109	1110	171	460.0D			
	207 IZMI	48	1109	1110	2.3	460.0D	280.0		
	207 IZMI	24	1111.3		170		50.0		
	113 POTS	40	1111.2	1112.7	11	700.0	20.0		
	234 POTS	45	1112.5	1112.7	.3	150.0	5.0		
	8800 ATHN	40	1115.7	1123.7	14.2	14.9	4.5		
	4995 ATHN	40	1116.2	1117.8	14.7	15.4	4.6		
	2695 ATHN	40	1116.7	1117.7	10.3	108.2	31.8		
	1415 ATHN	40	1117	1118	9.2	5.0	1.5		
	100 GORK	49	1124	1159.9	96 D	800.0			
	2800 OTTA		1125 E	1117.8	125 D	60.0			
	29 UPIC	45	1147.5	1147.5	1.5				
	29 UPIC	45	1158	1241	128				
	536 ONDR	45	1254	1254.5	1	45.0			
	234 POTS	45	1257.4	1257.9	.8	175.0	4.0		
	18 MCMA	6	1340	1341	3			1	
	18 MCMA	41	1359	1402	6			1	
	2800 OTTA	23	1425	1700	385	22.8	8.6		
	1415 SGMR	22	1426.4	1706.3	497.6D	39.9	16.0		
	3000 BERL	4	1428	1434.5	27	11.0	3.2		
	2695 SGMR	20	1429.3	1706.4	494.7D	49.0	19.6		
	4995 SGMR	20	1430.7	1705.5	493.3D	43.3	17.3		
	2800 OTTA	22	1430	1435	30	9.2	3.1		
	606 SGMR	22	1430.2	1706.1	454.2	144.2	57.7		
	4995 BOUL	3	1431	1434	5.5	9.0	3.0		
	8800 SGMR	20	1432.1	1705.7	201.9	25.4	10.2		
	1470 BERL	20	1432	1443	28 D	1.8			
	2695 BOUL	21	1433	1435.5	23.5	9.0	3.0		
	18 MCMA	6	1450	1453	6			2	
	18 MCMA	6	1508	1510	2			1	
	2700 PENN	20	1512.4	1706.3	200	37.3	9.1		
	15400 SGMR	20	1515 E	1704.8	310.4D	38.0	15.2		
	2800 OTTA	20	1520	1530	18	4.8	2.4		
	10700 PENN	20	1521.4	1706.1	188	23.4	9.9		
	1420 BOUL	45	1640	1643.5	7	5.0	2.0		
	2695 BOUL	45	1642	1707	57	25.0	6.0		
	1420 BOUL	45	1655	1706	45	24.0	7.0		
	245 SGMR	6	1656.6	1705.8	16.4	119.8	87.9		
	4995 BOUL	3	1657.5	1705	10.5	14.0	5.0		
	8800 PALE	4	1701.9	1709.5	10	23.0	6.9		
	2800 OTTA	4	1702	1706	11	19.4	8.2		
	1415 PALE	4	1702.2	1707.6	10.6	22.0	6.6		
	18 MCMA	41	1707	1711	6			1	
	18 MCMA	6	1735	1736	2			1	
	18 BOUL	41	1845	1847	4			1	
	2800 OTTA	26	2118	2138	20	-2.8	-1.4		
	18 MCMA	41	2235	2244	12			2	
19	9400 TYKW	5	0251.2	0251.6	1	7.0	2.0		
	606 MANI	2	0314.5	0314.8	1.9	5.9	2.2		
	100 GORK	44	0401 E		428 D		10.0		
	260 ONDR	44	0636	1407	514	110.0			
	245 SGMR	44	1031 E	2218.8	732 D	285.6			
	18 MCMA	42	2144	2209	56			2	
	207 VORO	44	2200	2218	30	58.0			
	207 VORO	44	2230	2238	125	245.0			
	3750 TYKW	5	0423	0426	10	3.0	1.0		
	3750 TYKW	5	0436	0437	3	2.0	0.5U		

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19	2000	TYKW	5	0521	0521.7	2	1.3	0.4		
	1000	TYKW	5	0521	0521.7	2	2.0	0.3		
	100	GORK	6	0622.8	0624'	1.2	400.0			
	950	GORK	41	0623.4	0623.5	1	1.3			
	950	GORK		0623.4	0624.2		2.7			
	650	GORK	41	0623.4	0623.4	1	2.1			
	650	GORK		0623.4	0624		2.8			
	3100	CRIM	20	0624	0800	132	3.0	1.0		
	950	GORK	2	0628.5	0628.5	.7	2.2			
	650	GORK	4	0628.5	0628.8	1.6	8.5			
	100	GORK	6	0905.2	0905.5	.8	70.0D			
	29	UPIC	45	0916	0916.5	2.5				
	29	UPIC	45	0942	0942.5	2				
	29	UPIC	45	1041	1043	3				
	2800	OTTA	20	1440		170	1.8	0.9		
	18	MCMA	6	1830	1830	2			1	
	2800	OTTA	21	2000		330 D	4.6			
	2800	OTTA	22	2102	2104	10	3.0	1.5		
	4995	BOUL	47	2216	2239.5	138 D	1693.0	436.0		
	9400	HUAN	28	2220.3	2225.8	6	36.8	14.4		
	2695	BOUL	47	2220.5	2241	134.5D	977.0	177.0		
	1420	BOUL	45	2220	2239.5	134 D	268.0	44.0		
	2930	VORO	47	2221		50	1800.0D			
	2695	PENT	47	2221	2240	51	1880.0	425.0		
	1415	SGMR	47	2221.8	2238.5U	21.2D	500.0D	U		
	2000	TYKW	45	2222	2239.8	53	890.0	200.0		
	1000	TYKW	47	2222	2235.6	53	1350.0	125.0		
	606	SGMR	47	2222.8	2238.6	20.2D	520.0D	U		
	8800	MANI	47	2223.9	2239.6	52.6	3300.0	970.0		
	8800	PALE	47	2223 U	2239.5	74 U	3200.0	970.0U		
	3750	TYKW	47	2223	2239.7	57	2450.0	410.0		
	2695	MANI	47	2223.9	2239.7	62.8	2000.0	620.0		
	1415	MANI	47	2223.1	2239.7	67.4	660.0	385.0		
	1415	PALE	47	2223 U	2238.7	70 U	660.0	200.0U		
	9400	TYKW	47	2224	2239.4	36	2950.0	660.0		
	4995	MANI	47	2224	2239.8	52.5	3300.0	1190.0		
	606	MANI	47	2224.3	2238	48.4	900.0	340.0		
	500	HIRA	45	2224	2238	46	760.0	120.0		
	410	SGMR	7	2225.2	2238.6	17.8D	496.0D	U		
	245	SGMR	49	2225.1	2238.5	17.9D	967.5D	U		
	9400	HUAN	45	2226.3	2233.4	7.4	376.1	146.1		
	9400	HUAN		2226.3	2231.2		291.3			
	200	HIRA	45	2227	2239 U	25	350.0D	170.0D		
	100	HIRA	45	2230.5	2239 U	38.5	1000.0D	100.0D		
	9400	HUAN	29	2233.7	2234.2	13.4	14.1			
	1415	MANI	8	2238.7	2238.8	.2	380.0	124.0		
	9400	TYKW	29	2300		360	120.0	15.0		
	2695	PENT	30	2312	2312	130 D	40.0			
	18	MCMA	41	2313	2317	9			2	
	2000	TYKW	29	2315		345	23.0	10.0		
	1000	TYKW	29	2315		340	8.0	3.0		
	2695	PENT	2	2319	2321	8	3.0	1.7		
	3750	TYKW	29	2320		340	35.0	14.0		
	100	HIRA	45	2335.5	0006.5	61	80.0	20.0		
	1415	MANI	4	2354.5	0001.5	12.3	31.7	15.4		
	3750	TYKW	5	2356	2400.3	10	9.0	3.0		
	2930	VORO	45	2356	0001	7	65.0			
	2695	MANI	3	2356	.3	10.6	15.2	9.5		
	2695	PENT	4	2356	2400.5	10	19.2	9.6		
	2000	TYKW	45	2356	2400.4	11	27.0	11.0		
	606	MANI	1	2356.4	0001.5	9	7.7	2.0		
	1000	TYKW	5	2358 E	2400.3	9 D	28.0	15.0U		
	1000	TYKW	45	2408	2433.4	35	5.0	1.5		
	9400	TYKW	5	2432.4	2432.7	.6	26.0	7.0		
	3750	TYKW	5	2434	2435.3	3	3.0	1.0		
	1000	TYKW	45	2446	2500.5	25	13.0	4.0		
	2000	TYKW	5	2458	2500.4	8	4.0	1.5		
20	606	MANI	4	0057.5	0057.9	11.5	10.7	3.6		
	1415	MANI	1	0058	0100.5	9.8	6.3	2.4		
	100	GORK	44	0600		180		5.0		
	2800	OTTA	22	1505	2035	465	3.8	2.0		
	18	BOUL	6	1832	1833	4			1	
	247	VORO	6	2242	2244	3	38.0			
	200	HIRA	45	2242	2243.5	2	60.0	20.0		
21	2000	TYKW	5	0011	0011.4	1	6.0	1.0		
	1000	TYKW	5	0011	0011.4	1	2.0	0.7		
	100	GORK	41	0405.2	0405.3	1.8	70.0			
	100	GORK		0405.2	0406.6U		70.0D			
	260	ONDR	41	0602	0916	578	45.0			
	6100	KISV	3	0906	0907.5	4	3.0			
	6100	KISV	3	1151	1152.5	4	3.0			
	536	ONDR	45	1215	1216	5	40.0			
	9500	BERL	4	1320.5	1321.8	2.5	10.0	3.9		
	8800	SGMR	4	1320.4	1321.7	3.8	15.8	4.8		
	8800	ATHN	4	1320.5	1321.5	1.9	10.5	3.2		
	4995	BOUL	3	1320	1321	2.5	10.0	3.0		
	4995	SGMR	4	1320.5	1321.7	7.8	16.0	4.8		
	3000	BERL	1	1320.5	1321.5	2.5	2.6			

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	2695	SGMR	2	1320.2	1321.9	9	3.5	1.1		
	536	ONDR	45	1320.5	1322	2	35.0			
	9240	ARCE	1	1321	1322	2.2				
	2800	OTTA	1	1321	1321.5	1	2.0	1.0		
	1470	BERL	1	1321	1321.5	1	1.2			
	2800	OTTA	240	1435	1820	215	3.0	1.5		
	18	MCMA	6	1708	1710	3				
	4995	BOUL	45	1813	1816	24	10.0	3.0	2	
	4995	SGMR	20	1814.9	1817.1	12.6	6.8	2.0		
	9400	HUAN	3	1815.6	1817.1	2.8	13.4	5.7		
	8800	SGMR	3	1816	1817.2	4.8	17.9	5.4		
	2800	OTTA	24P	1820		300 D	3.0			
	2800	OTTA	20	1840	1932	130	2.2	1.1		
	4995	BOUL	45	2146.5	2150	19	10.0	3.0		
	18	MCMA	41	2147	2150	19				
	18	MCMA	42	2211		88			3	
	207	VORO	44	2225	2251	215		12.0	3	
	1420	BOUL	3	2226	2228.5	20	2.0	1.0		
	1420	BOUL	45	2307.5	2312.5	7.5	2.0	1.0		
	4995	BOUL	8	2319.5	2323.5	10.5	23.0	5.0		
	3750	TYKW	5	2321	2324.2	8	7.0	1.0		
	9400	TYKW	5	2323	2324.2	3	10.0	3.0		
	1420	BOUL	45	2326.5	2342.5	30	63.0U	14.0U		
22	1420	BOUL	3	0015.5	0018.5	6.5	5.0	1.0		
	3750	TYKW	5	0104	0110	25	2.0	1.0		
	3750	TYKW	5	0221	0223	12	2.0	1.0		
	3750	TYKW	5	0239	0242	10	1.0	0.5U		
	9400	TYKW	5	0313	0320	25	4.0	2.0		
	3750	TYKW	5	0313	0320	15	2.0	1.0		
	260	ONDR	44	0630	1420	524	100.0			
	100	GORK	44	0912		108 D		5.0		
	245	SGMR	44	1034 E	1517	723 D	45.0			
	100	HIRA	44	2025 E	2313	210 D	120.0	35.0		
	207	VORO	44	2200	2333	107		50.0		
	221	ARST		0832.8	0834.2	2.2	27.0	9.0		
	6100	KISV	20	0911	0915	8	3.0			
	221	ARST	40	0911.8	0913.8	4	14.0	5.0		
	100	GORK	41	1029.2	1029.7	7.3	70.0			
	100	GORK		1029.2	1033.7		25.0			
	29	UPIC	45	1029	1029.5	9.5				
	536	ONDR	45	1031	1035	7	40.0			
	29	UPIC	45	1046	1051	5				
	410	SGMR	6	1419.6	1422.3	16.4	14.9	4.5		
	245	SGMR	6	1419.2	1420	15	67.5	20.3		
	606	SGMR	41	1421.2	1422.3	5.8	6.8	2.1		
	245	SGMR	6	1443.6	1444.7	4	37.5	11.3		
	410	SGMR	6	1444.2	1446.8	5.8	4.3	1.2		
	606	SGMR	4	1445.6	1445.7	.9	12.8	3.8		
	2800	OTTA	26	1550	1608	18	-1.6	-0.8		
	1415	SGMR	1	1806.7	1807.5	5.2	2.0	.4		
	606	SGMR	4	1806.7	1807.1	2.4	10.4	2.1		
	2800	OTTA	1	1807	1807.5	2	1.0	0.5		
	410	SGMR	6	1807	1807.1	2.3	8.0	1.6		
	18	BOUL	41	1810	1812	3			1	
	18	MCMA	41	1812	1813	4			2	
	2800	OTTA	20	1825	1847	30	1.6	0.9		
	18	MCMA	6	1931	1932	2			2	
	2800	OTTA	240	2145	2224	39	3.8	1.9		
	18	MCMA	42	2151	2154	19			1	
	2695	BOUL	45	2214.5	2220	30.5	7.0	2.0		
	2695	PENT	24P	2224		160 D	3.8			
	18	MCMA	42	2224	2225	2				
	2695	PENT	2	2227	2230	9	3.8	1.9	1	
	18	MCMA	6	2235	2236	2			1	
	2695	BOUL	3	2247.5	2253.5	9.5	4.0	1.0		
	2695	PENT	22	2249	2252	13	3.2	1.6		
	1000	TYKW	42	2316	2320.1	8	7.0	0.3U		
	606	MANI	22	2316.2	2338.6	38.4	8.8	1.6		
	200	HIRA	45	2325	2331.5	19	80.0	30.0		
	4995	MANI	47	2326.9	2340.2	38.4	1900.0	940.0		
	2695	MANI	47	2326.9	2341.1	34.1	960.0	320.0		
	1420	BOUL	47	2326.5	2339.5	35.5	1241.0	366.0		
	1415	MANI	4	2326.9	2340.2	34.1	88.0	19.2		
	9400	TYKW	47	2327	2340.3	38	2000.0	500.0		
	8800	MANI	47	2327.3	2340.5	38	2200.0	630.0		
	3750	TYKW	47	2327	2339.8	38	1450.0	365.0		
	2930	VORO	47	2327	2341	37	2140.0			
	2695	BOUL	45	2327	2342.5	35	442.0	146.0		
	2695	PENT	47	2327	2341	34	850.0	230.0		
	2000	TYKW	45	2327	2341.2	33	290.0	95.0		
	1000	TYKW	45	2327	2339.9	33	40.0	17.0		
	2000	TYKW	29	2400		60	2.0	1.0		
	9400	TYKW	29	2405		80	16.0	7.0		
	3750	TYKW	29	2405		80	4.0	2.0		
	3750	TYKW	5	2410	2414	10	5.0	2.0		
	1000	TYKW	45	2410	2413	11	9.0	3.0		
	2000	TYKW	5	2411	2413.3	10	4.0	2.0		
23	8800	MANI	20	0010.4	0013.1	11.5	6.9	3.5		

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23	4995	MANI	1	0010.3	0012.3	8.4	5.7	1.9		
	2695	PENT	2	0010	0012	7	5.4	3.0		
	2695	MANI	1	0010.2	0012.3	8.5	4.6	1.8		
	1420	BOUL	3	0010.5	0014	5	8.0	3.0		
	1415	MANI	1	0010	0012.9	8.7	4.3	1.4		
	606	MANI	4	0010	0012.9	7.4	25.2	6.6		
	2695	BOUL	3	0011.5	0015	6.5	7.0	2.0		
	536	ONDR	45	0804	0805	2	30.0			
	260	ONDR	45	0924.5	0935	25	25.0			
	100	GORK	44	1000 E	1004.1	78		5.0		
	536	ONDR	45	1108.5	1224	121.5	280.0			
	9240	ARCE	23	1143.3	1233.6	146				
	100	GORK	49	1154	1205	98	12000.0			
	100	GORK		1154	1215.6		2500.0			
	100	GORK		1154	1227		8500.0			
	100	GORK		1154	1312		200.0			
	6100	KISV	45	1156	1201	15	81.0			
	1415	ATHN	28	1156.4	1158.3	1.9	8.8	2.6		
	3100	CRIM	3	1157	1200	83 D	80.0D			
	1470	BERL	46	1157	1202	77	1250.0D			
	1415	SGMR	47	1157.3	1201.1	74.1	2250.0	696.0		
	1415	SGMR	47		1229.4		151.8			
	950	GORK	21	1157.3	1242	78.9	31.0			
	950	GORK	46	1157.8	1159.4	8.1	84.0			
	950	GORK		1157.8	1201.4		1080.0			
	950	GORK		1157.8	1202.6		280.0			
	930	RORD	45	1157	1201.2	77	1373.0	101.0		
	650	GORK	23	1157.6		133				
	510	POTS	45	1157	1229	112	560.0			
	10500	BERN	4	1158.6	1201.8	13				
	9500	BERL	40	1158	1201.3	74	31.0			
	4995	SGMR	46	1158.2	1201.1	65.5	120.0	48.0		
	4995	SGMR	46		1229.2		46.4			
	3000	BERL	46	1158	1201	80	484.0			
	2800	OTTA	47	1158	1201	62	670.0	37.0		
	2695	SGMR	47	1158.3	1201.2	69.6	566.0	227.0		
	2695	SGMR	47		1229.2		103.2			
	2695	ATHN	47	1158.3	1201.1	62.9	727.0	218.1		
	2695	ATHN	47		1229.2		105.0			
	1415	ATHN	47	1158.3	1201.1	75.8	1837.0	551.0		
	1415	ATHN	47		1229.2		145.0			
	808	ONDR	45	1158		122	680.0D			
	606	SGMR	47	1158.5	1203.4	91.3	216.8	191.0		
	606	SGMR	47		1223.5		540.0			
	8800	ATHN	4	1159.9	1201.1	4.1	34.3	10.3		
	650	GORK	46	1159.1	1201.1	11.3	150.0			
	650	GORK		1159.1	1203.7		180.0			
	410	SGMR	49	1159	1228.6	98.4	3500.0	1277.0		
	245	SGMR	49	1159.8	1229.3	97.7	18100.0	5401.0		
	15400	SGMR	4	1200	1201.5	41.8	21.1	6.3		
	9400	HUAN	3	1200.5	1201.5	7.1	28.5	8.3		
	9240	ARCE	3	1200.6	1201.8	9				
	234	POTS	45	1200	1230	108	60000.0			
	260	ONDR	45	1201.5		93	235.0D			
	228	HARS	45	1201		94	370.0D			
	200	GORK		1201.4	1206.7	92				
	200	GORK		1201.4	1230					
	113	POTS	45	1201	1204	107	9000.0			
	8800	ATHN	29	1204	1204	8.2	10.6	3.2		
	29	UPIC	45	1204		32				
	18	MCMA	42	1204	1206	8			2	
	207	IZMI	48	1205 E		15 U				
	8800	ATHN	20	1217.8	1233.3	42	22.7	13.6		
	950	GORK	46	1218.7	1221.5	23.3	119.0			
	950	GORK		1218.7	1223.4		1060.0			
	950	GORK		1218.7	1237.5		159.0			
	650	GORK	46	1221	1223.9	22	730.0			
	650	GORK		1221	1225.7		320.0			
	10500	BERN	45	1224.9	1229.2	21				
	10500	BERN			1233.6					
	9400	HUAN	3	1226.1	1232.8	12.6	18.1	7.2		
	2700	PENN	45	1229.3E	1229.3		90.0			
	10700	PENN	3	1233.4E	1233.4		20.0			
	207	IZMI	48	1227.7	1229.7	5.6	5100.0	2000.0		
	207	IZMI	48	1248	1250	6	200.0	160.0		
	29	UPIC	45	1248	1250.5	5				
	950	GORK	4	1249.6	1249.8	3	99.0			
	650	GORK	4	1249.4	1250.7	3	200.0			
	650	GORK	40	1252.7	1301	38	65.0			
	650	GORK		1252.7	1309.3		85.0			
	650	GORK		1252.7	1322.2		30.0			
	2800	OTTA	29	1300	1300	10	3.3	1.1		
	950	GORK	46	1303.8	1309.6	10.4	65.0			
	950	GORK		1303.8	1313.2		8.5			
	950	GORK	1	1322.6	1322.9	1.2	6.9	3.4		
	245	SGMR	6	1351.6	1407.3	18.1	74.8	16.0		
	410	SGMR	6	1352.6	1407.6	16.4	36.7	7.3		
	18	MCMA	42	1709	1710	5			1	
	18	MCMA	42	2210	2230	46			2	
	1000	TYKW	5	2240	2240.5	1	1.5	0.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1974

SEP 1974	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	18 MCMA	6	2328	2329	2			1	
24	8800 PALE	3	0401.5	0401.8	3.3	84.0	25.0		
	1415 PALE	3	0401	0401.8	6.1	240.0	73.0		
	9400 TYKW	5	0402.3	0403	5	75.0	20.0		
	8800 MANI	4	0402.7	0403.2	7.5	71.0	17.8		
	4995 MANI	4	0402.4	0403.2	7.5	128.0	25.5		
	3750 TYKW	5	0402.3	0403.1	8	135.0	25.0		
	2695 MANI	3	0402.5	0403.2	8.7	206.0	47.0		
	2000 TYKW	5	0402	0403.2	9	265.0	55.0		
	1415 MANI	3	0402.2	0403.3	9	271.0	75.0		
	1000 TYKW	45	0402	0403.8	7	445.0	125.0		
	606 MANI	47	0402.1	0403.7	8.4	4700.0	320.0		
	500 HIRA	45	0402.8	0404.7	10	710.0	140.0		
	200 HIRA	45	0402.5	0403.5U	22	380.0D	70.0D		
	950 GORK	4	0403.4E	0404.2	5.5D	322.0			
	650 GORK	46	0403.6E	0404.1	6.4	2000.0D			
	650 GORK		0403.6E	0404.7		830.0			
	200 GORK	48	0403 F	0404.3	16.3	400.0D			
	200 GORK		0403 E	0405		400.0D			
	100 HIRA	45	0403		26		200.0D		
	100 HIRA		0403	0405 U		1000.0D			
	100 HIRA		0403	0415.8		1000.0D			
	100 GORK	41	0403	0406	21	100000.0			
	100 GORK		0403	0419.6		1000.0			
	650 GORK	41	0409.6	0424.2	54.8	35.0			
	650 GORK		0409.6	0435.9		48.0			
	650 GORK		0409.6	0450.2		44.0			
	650 GORK		0409.6	0503.2		16.0			
	606 MANI	41	0411	0435.6	65.8	41.0	8.1		
	1000 TYKW	45	0415	0424	16	20.0	3.0		
	950 GORK	41	0417.7	0424	49.5	28.0			
	950 GORK		0417.7	0434.9		24.3			
	950 GORK		0417.7	0450.1		8.0			
	950 GORK		0417.7	0503		4.0			
	1000 TYKW	45	0432	0434.7	6	22.0	6.0		
	1000 TYKW	45	0445	0449.4	8	6.0	2.0		
	1000 TYKW	45	0455	0501.6	9	3.0	1.0		
	3100 CRIM	20	0918	0955	69	2.0	1.0		
	950 GORK	1	1105 E	1105.6	.7D	6.0			
	950 GORK	20	1121.6	1126.3	8.1	6.6	2.6		
	18 MCMA	6	1709	1712	3			2	
	18 MCMA	42	2050	2052	4			1	
	18 MCMA	6	2123	2125	2			1	
	18 MCMA	42	2203	2219	23			1	
	18 MCMA	42	2233	2235	6			1	
	18 MCMA	41	2304	2319	19			2	
25	200 GORK	44	0445		345		5.0		
	260 ONDR	45	0646	0934	254	30.0			
	221 ARST	44	0700	0715	200.8	6.0			
	100 GORK	44	0854 E		126		10.0		
	260 ONDR	45	1352.5	1401.5	15	30.0			
	18 MCMA	6	1704	1706	3			2	
	18 MCMA	42	2142	2313	138			2	
26	260 ONDR	45	0914	0918.5	6	15.0			
	260 ONDR	45	1008	1008	2	15.0			
	260 ONDR	45	1037	1053	61	20.0			
	29 UPIC	45	1110	1110.5	1				
	29 UPIC	45	1223	1224	1.5				
	29 UPIC	5	1232.5	1232.5	1				
	29 UPIC	45	1516	1519	30				
	930 RORD	45	1528	1529.2	2	17.0	2.0		
	29 UPIC	45	1608	1609	6.5				
	930 RORD	45	1624	1624.6	1	15.0	2.0		
	29 UPIC	45	1624.5	1625	1				
	29 UPIC	45	1631	1631.5	5				
	2695 BOUL	3	1755.5	1759	7.5	4.0	1.0		
	18 MCMA	42	2208	2213	71			2	
27	260 ONDR	41	0700	1348.5	480	20.0			
28	2695 BOUL	1	0012	0012.5	1	3.0	1.0		
	3100 CRIM	24	0915	1030		2.0			
	9400 HUAN	3	1118.1	1124.1	12.3	28.0	9.3		
	18 MCMA	42	1828	1829	4			1	
	18 MCMA	42	1902	1910	8			2	
	18 MCMA	42	2143	2226	60			3	
	1000 TYKW	5	2158.6	2159	1	4.0	1.0		
29	2000 TYKW	5	0143	0143.5	1.5	.9	0.3		
	1000 TYKW	5	0143	0143.6	1.5	.8	0.3		
	4995 MANI	4	0808.9	0809.7	13.1	60.0	4.8		
	260 ONDR	41	0954.5	1216	265.5	45.0			
	1470 BERL	2	1003.5	1004.6	2	2.5	0.8		
	3100 CRIM	24	1054	1109		4.0			
	2800 OTTA	27	1450		103	1.4	1.0		
	2800 OTTA	24	1450	1543	53	1.4	0.7		
	2800 OTTA	24P	1543		43	1.4			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1974

SEP 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	2800	OTTA	26	1626	1633	7	-1.4	-0.7		
	2800	OTTA	20	1650	1730	80	2.8	1.6		
	245	SGMR	43	1657.5	1758.9	242.5D	10.9			
	18	MCMA	6	1713	1714	2			2	
	2800	OTTA	27F	1830		900	3.6	2.4		
	2800	OTTA	24	1830	2055	145	3.6	1.8		
	2800	OTTA	24P	2055		105	3.6			
	18	MCMA	42	2145	2152	28			2	
	207	VORO	44	2200	2238	240		21.0		
	2695	PENT	26	2240	2330	50	-3.6	-1.9		
30	1415	ATHN	1	0548.9	0549.9	2.8	7.0	2.1		
	1000	TYKW	45	0549	0549.8	4	5.0	1.5		
	260	ONDR	44	0647	1353.5	503	185.0			
	245	SGMR	44	1043 F	1545	700 D	92.5			
	410	SGMR	44	1430 F	1509.4	483 D	26.6			
	207	VORO	44	2200	0131	240		11.0		
	6100	KISV	20	0652	0659.3	32	9.0			
	9100	GORK	20	0653	0658	34.5	10.2	5.4		
	8800	ATHN	4	0653.2	0658.7	28.5	19.9	6.0		
	3100	CRIM	20	0654	0700	28	3.0	1.0		
	113	POTS	45	0718.5	0718.6	.3	700.0	70.0		
	100	HIRA	45	0718.5	0718.6	1	370.0	80.0		
	9100	GORK	20	0736	0741	12	3.2	2.3		
	2695	ATHN	1	0817.5	0819.2	2.4	2.5	.8		
	8800	ATHN	1	0818.6	0819.4	1.3	1.6	.5		
	1415	ATHN	1	0819.1	0819.3	1	2.0	.6		
	113	POTS	41	0822.9	0823.2	5	1000.0	8.0		
	6100	KISV	20	0844	0905	50	3.0			
	9400	HUAN	3	1109.7	1121.6	19.8	69.2	34.3		
	18	MCMA	6	1320	1323	3			2	
	113	POTS	45	1347.9	1348	.7	700.0	100.0		
	234	POTS	45	1353.9	1353.9	.1	175.0	40.0		
	29	UPIC	45	1425	1425.5	1				
	2800	OTTA	240	1855	1950	55	1.8	0.9		
	2695	PENT	24P	1940		250 D	1.8			
	18	MCMA	6	2243	2245	4			2	

Observatories:

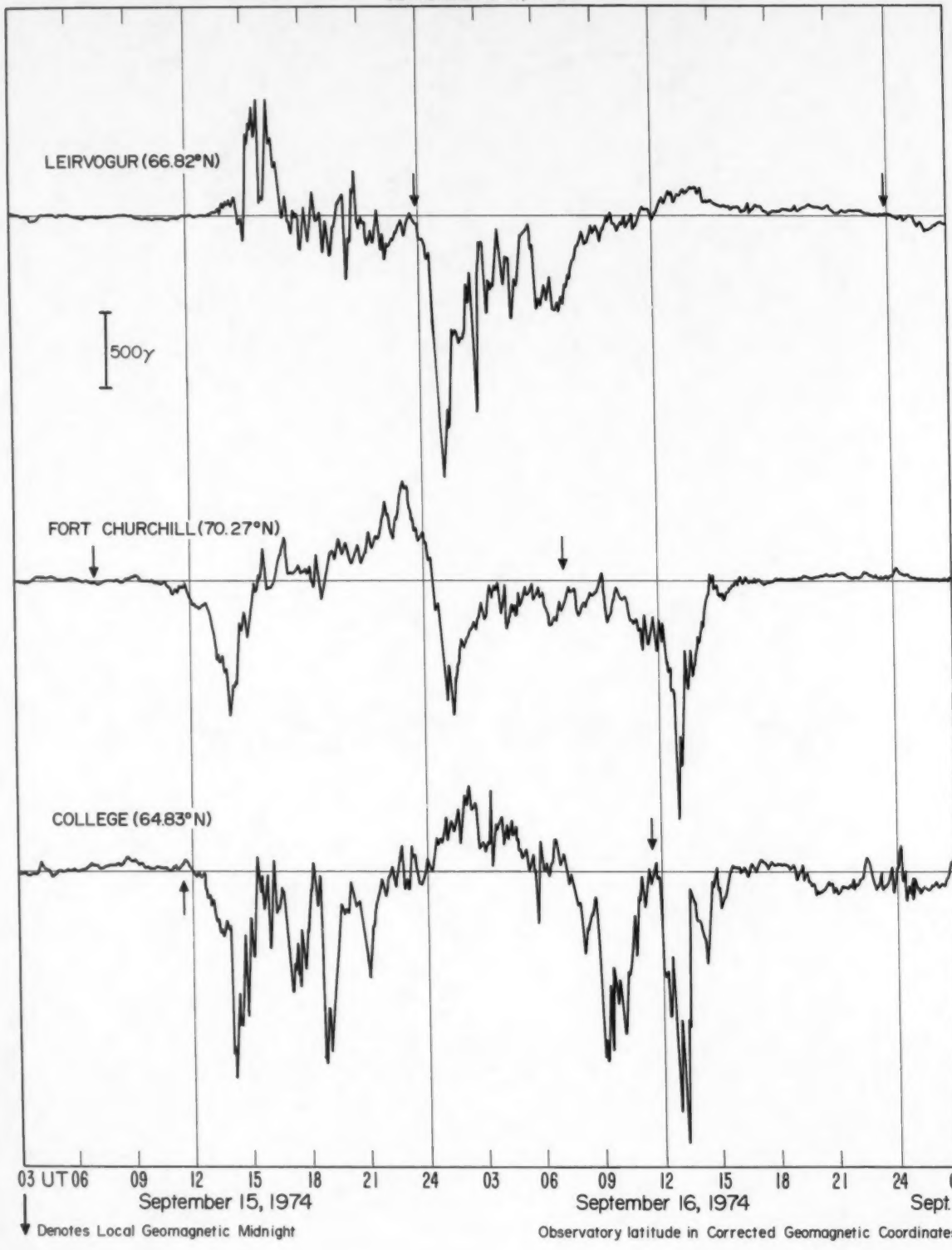
ABST = Abastumani
ARCE = Arcetri
BERL = Berlin-Adlershof
BERN = Berne
BORD = Bordeaux
BOUL = Boulder
CANR = Canary Islands
CRIM = Simferopol
CRON = Carnarvon
DWIN = Dwingeloo
GORK = Gorky
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Moscow IZMIRAN
KIEV = Kiev
KISV = Kislovodsk
MANI = Manila
MCMA = McMath-Hulbert
ONDR = Ondrejov
OTTA = Ottawa ARO
PENN = Penn. State Univ.
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SLOU = Slough
TRST = Trieste
TYKW = Toyokawa
UPIC = Upice
VORO = Voroshilov

Explanation of Type Code:

1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

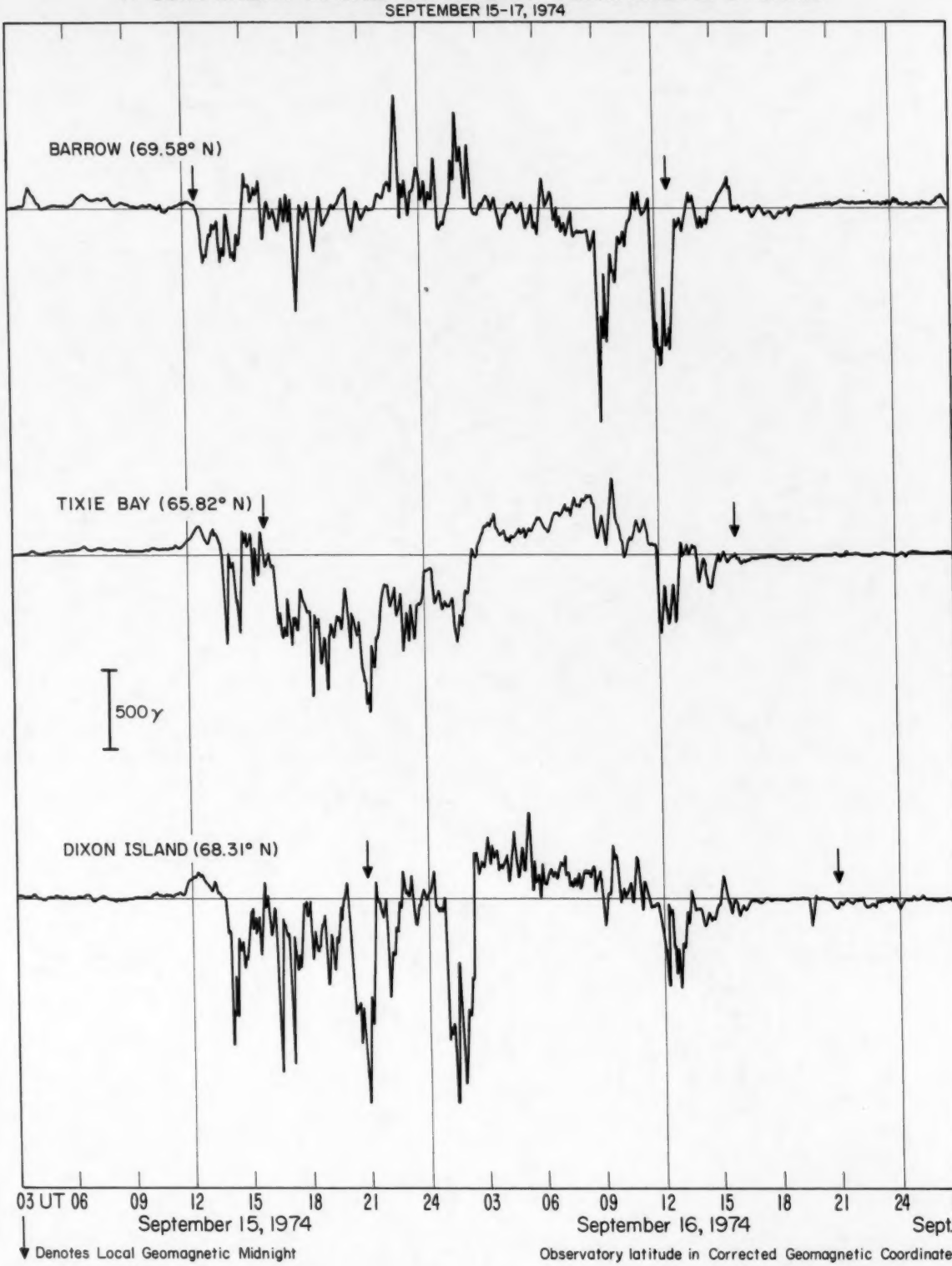
H-COMPONENT MAGNETOGRAMS OF GEOMAGNETIC STORMS

SEPTEMBER 15-17, 1974


LEIRVOGUR (66.82°N)
500γ
FORT CHURCHILL (70.27°N)
COLLEGE (64.83°N)
03 UT 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24 03
September 15, 1974
September 16, 1974
Sept. 17
Denotes Local Geomagnetic Midnight
Observatory latitude in Corrected Geomagnetic Coordinates

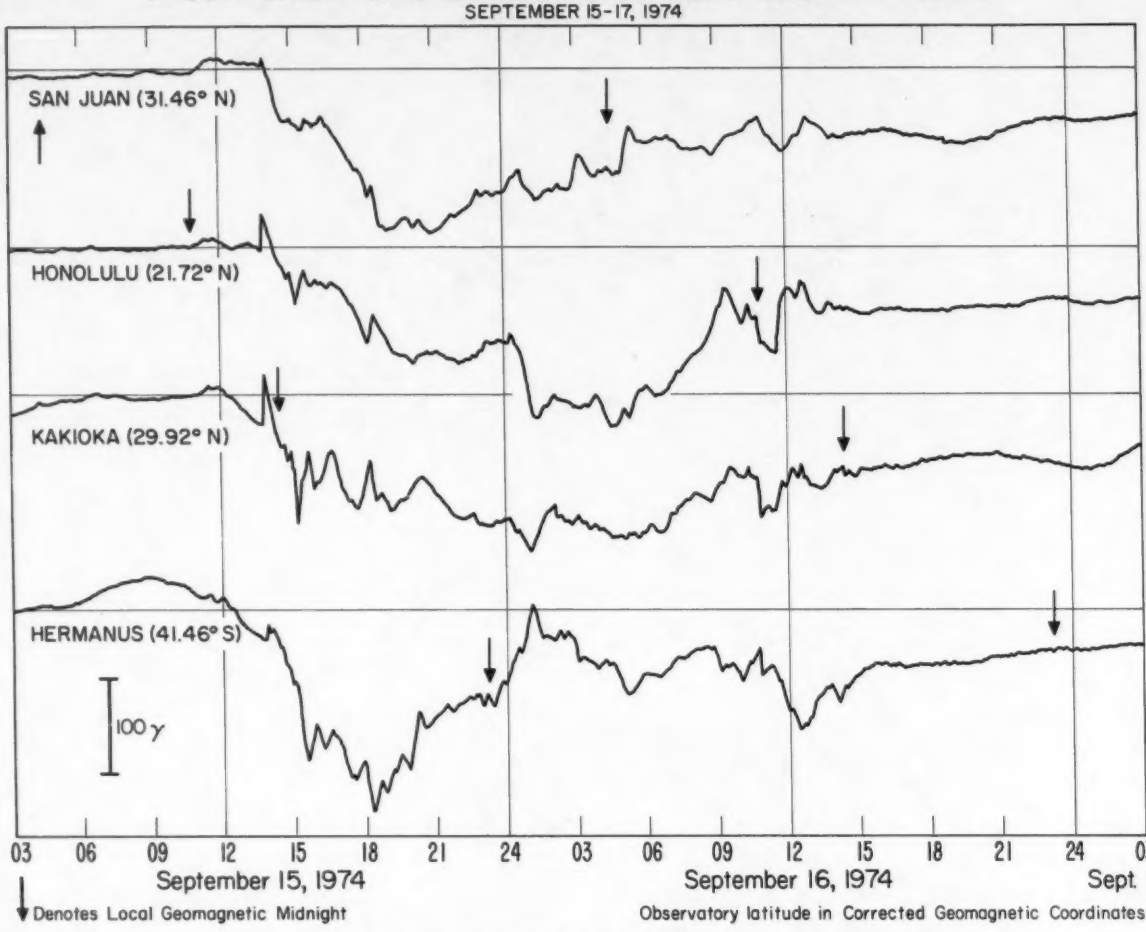
H-COMPONENT MAGNETOGRAMS OF GEOMAGNETIC STORMS

SEPTEMBER 15-17, 1974


BARROW (69.58° N)
TIXIE BAY (65.82° N)
500γ
DIXON ISLAND (68.31° N)
03 UT 06 09 12 15 18 21 24 03 06 09 12 15 18 21 24 03
September 15, 1974
September 16, 1974
Sept. 17
Denotes Local Geomagnetic Midnight
Observatory latitude in Corrected Geomagnetic Coordinates

H-COMPONENT MAGNETOGRAMS OF GEOMAGNETIC STORMS

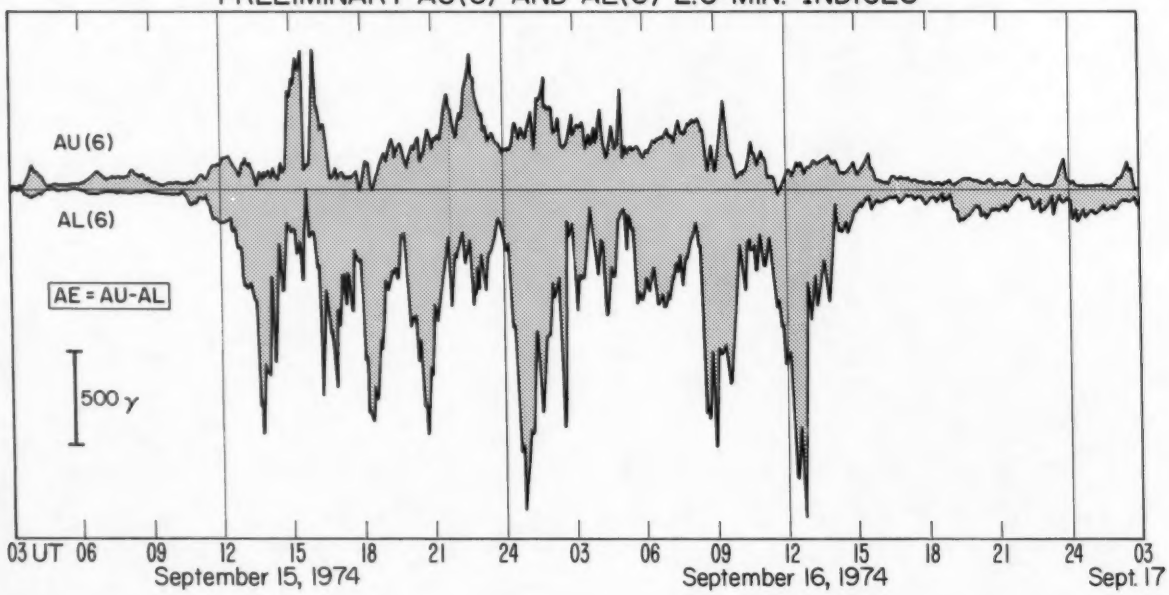
SEPTEMBER 15-17, 1974



↓ Denotes Local Geomagnetic Midnight

Observatory latitude in Corrected Geomagnetic Coordinates

PRELIMINARY AU(6) AND AL(6) 2.5-MIN. INDICES



AUGUST 1974 DATA

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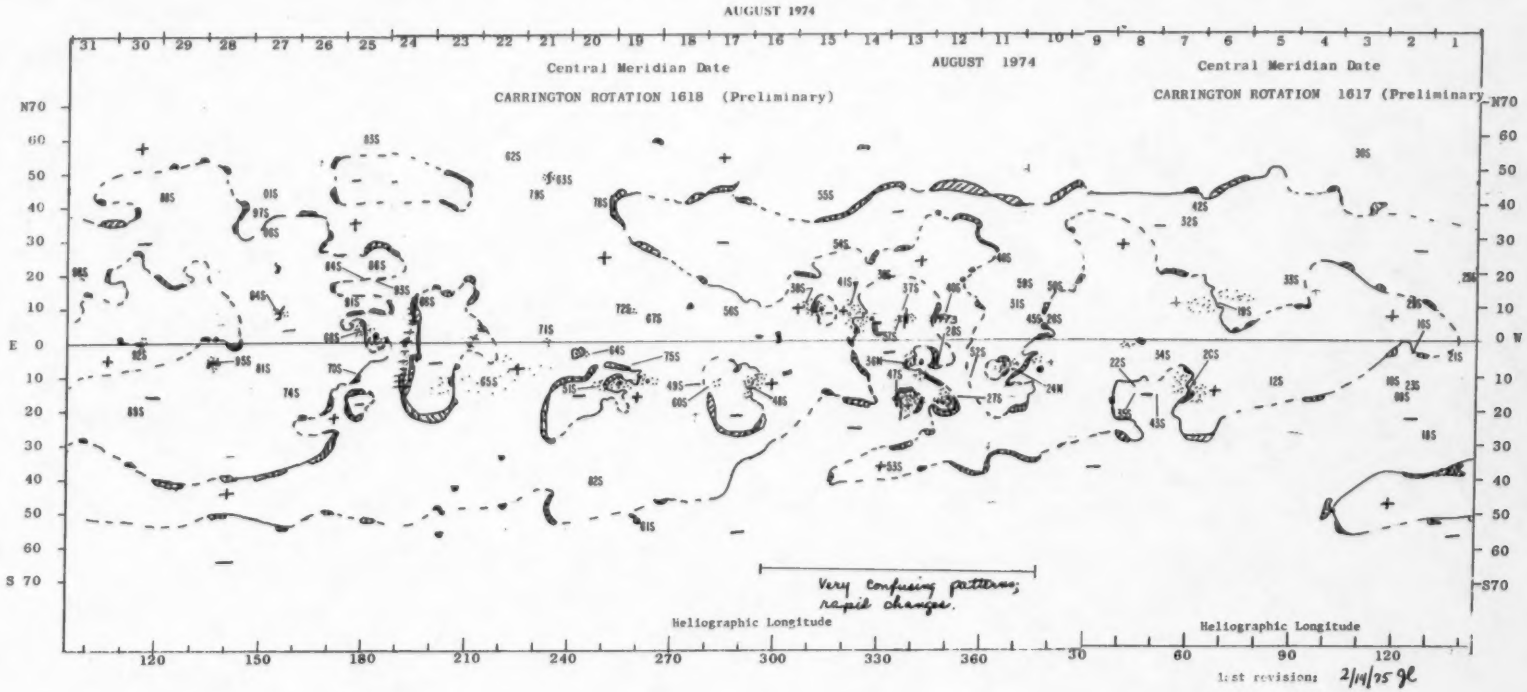
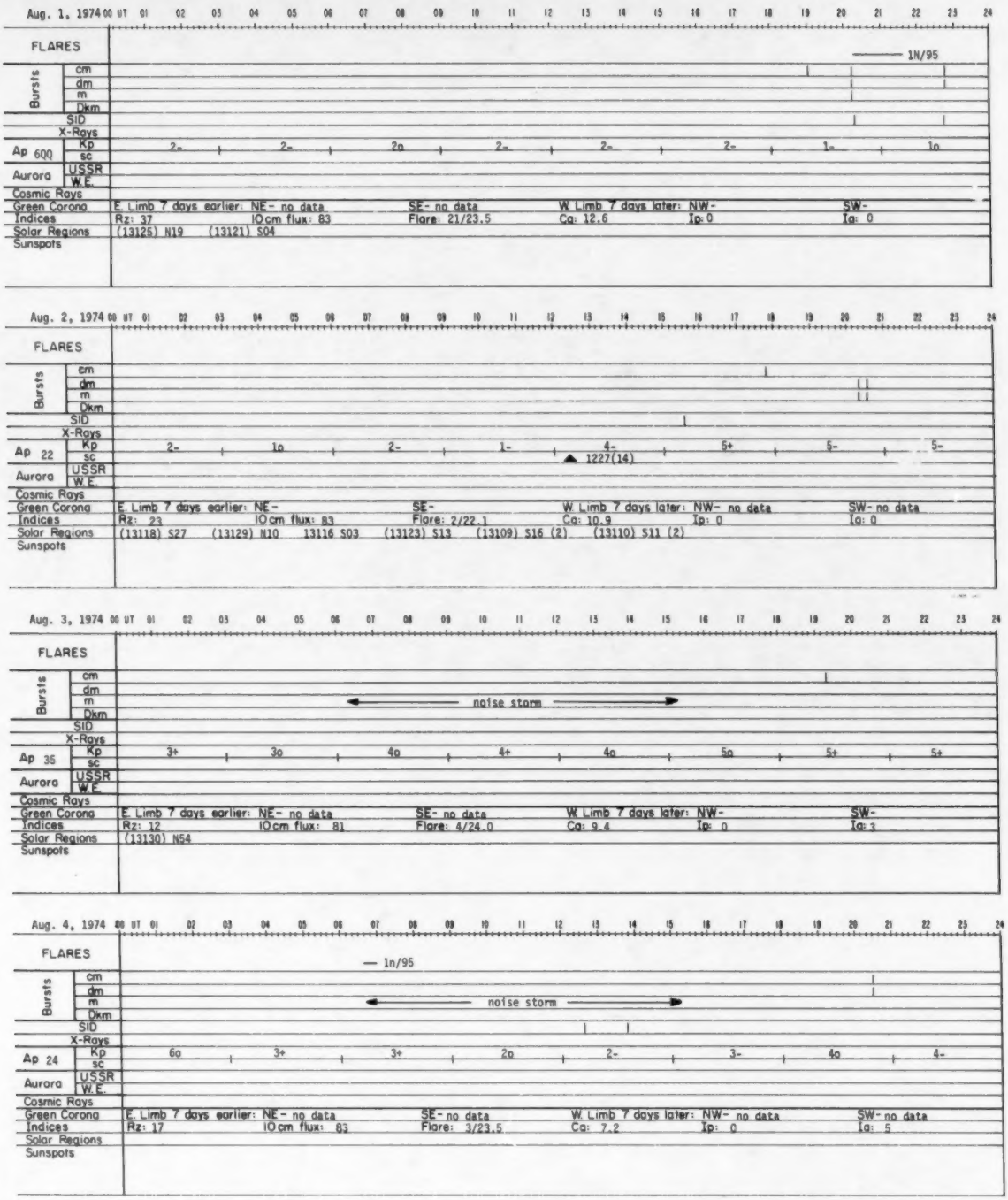
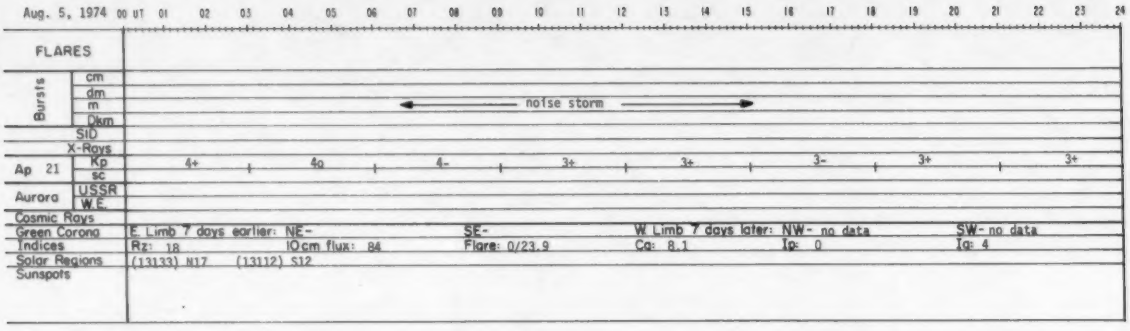
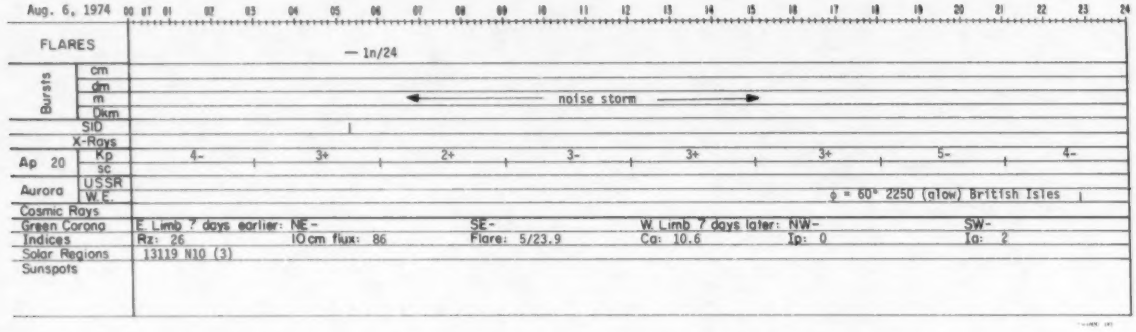
ABBREVIATED CALENDAR RECORD

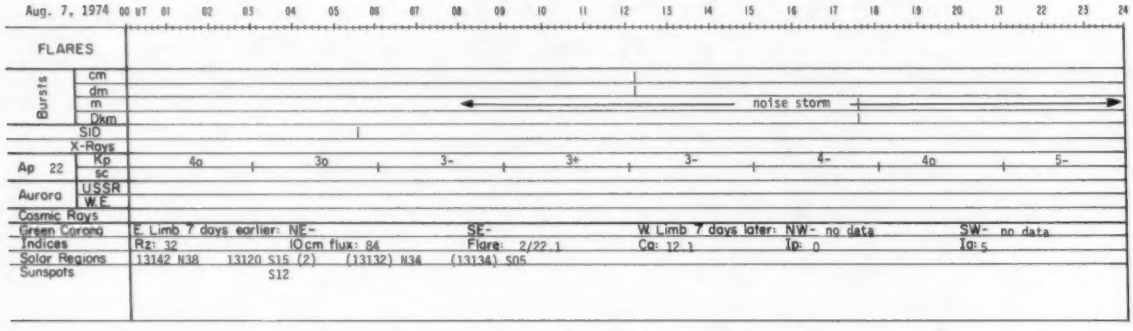


last revision: 2/14/75 gl


Aug. 1, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1N/95
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 600
Kp
sc
2- 2- 2o 2- 2- 2- 1- 1o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE- no data
SE- no data
W Limb 7 days later: NW-
SW-
Rz: 37
10cm flux: 83
Flare: 21/23.5
Ca: 12.6
Ip: 0
Ia: 0
(13125) N19 (13121) S04
Aug. 2, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 22
Kp
sc
2- 1o 2- 1- 4- 5+ 5- 5-
1227(14)
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE-
SE-
W Limb 7 days later: NW- no data
SW- no data
Rz: 23
10cm flux: 83
Flare: 2/22.1
Ca: 10.9
Ip: 0
Ia: 0
(13118) S27 (13129) N10 13116 S03 (13123) S13 (13109) S16 (2) (13110) S11 (2)
Aug. 3, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 35
Kp
sc
3+ 3o 4o 4+ 4o 5o 5+ 5+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE- no data
SE- no data
W Limb 7 days later: NW-
SW-
Rz: 12
10cm flux: 81
Flare: 4/24.0
Ca: 9.4
Ip: 0
Ia: 3
(13130) N54
Aug. 4, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1n/95
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 24
Kp
sc
6o 3+ 3+ 2o 2- 3- 4o 4-
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE- no data
SE- no data
W Limb 7 days later: NW- no data
SW- no data
Rz: 17
10cm flux: 83
Flare: 3/23.5
Ca: 7.2
Ip: 0
Ia: 5


Aug. 5, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 21
Kp
sc
4+ 4o 4- 3+ 3+ 3- 3+ 3+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 18 10cm flux: 84 Flare: 0/23.9 Ca: 8.1 Ip: 0 Ig: 4
Solar Regions
(13133) N17 (13112) S12
Sunspots


Aug. 6, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1n/24
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 20
Kp
sc
4- 3+ 2+ 3- 3+ 3+ 5- 4-
Aurora
USSR
W.E.
φ = 60° 2250 (glow) British Isles
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices
Rz: 26 10cm flux: 86 Flare: 5/23.9 Ca: 10.6 Ip: 0 Ig: 2
Solar Regions
13119 N10 (3)
Sunspots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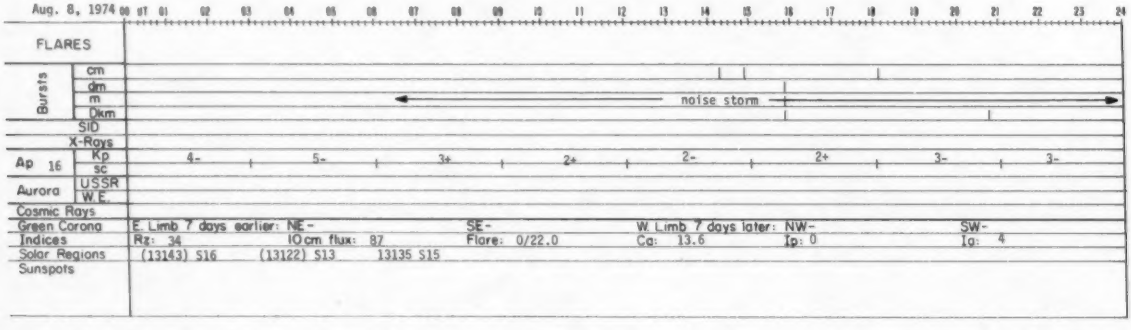
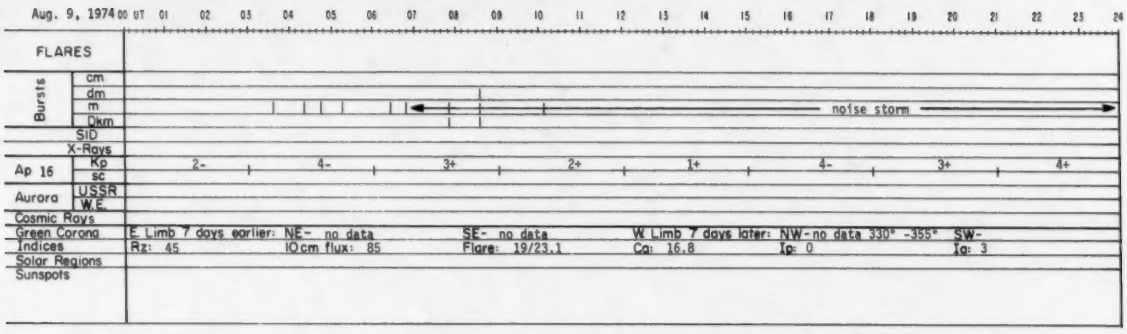
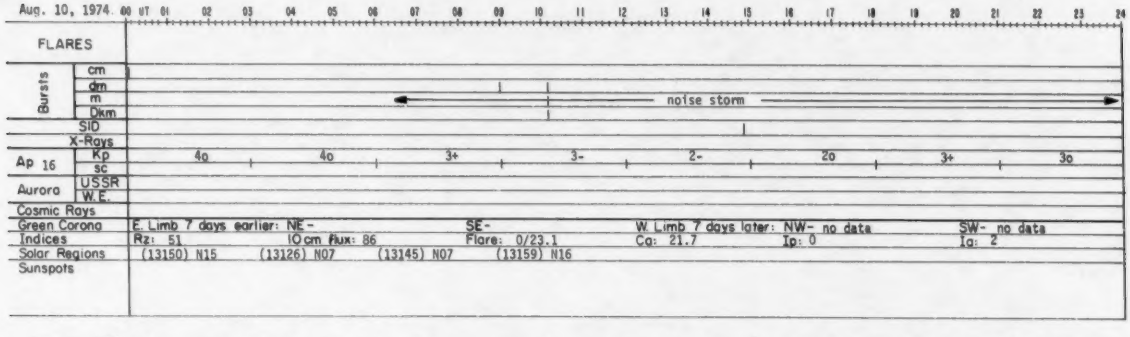
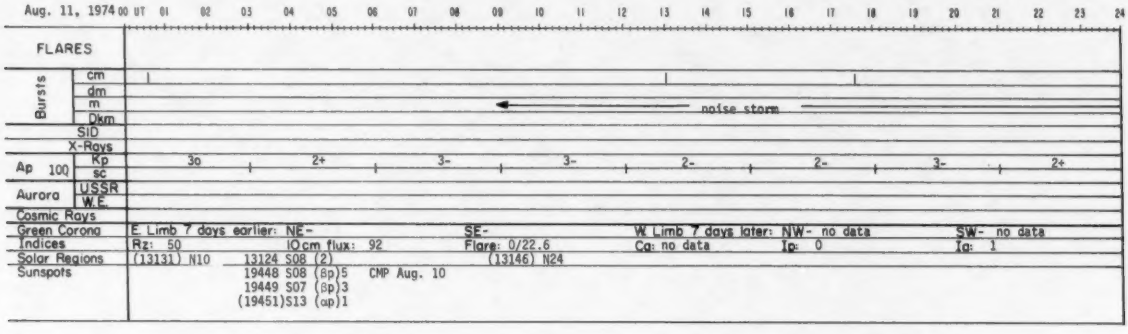
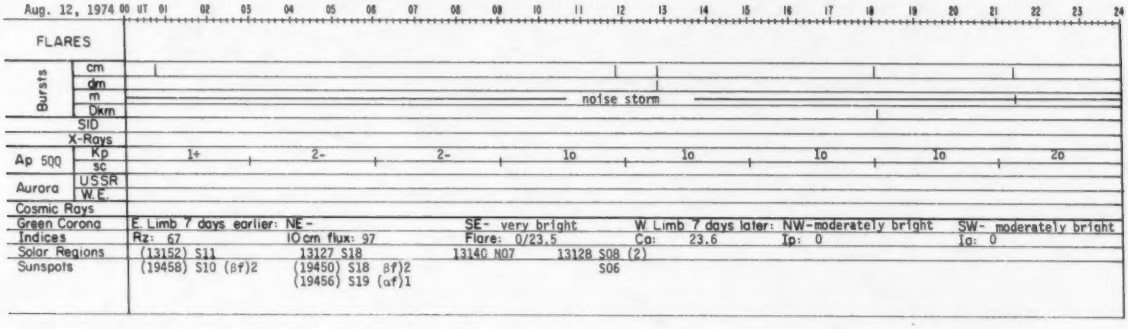
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 22
Kp
sc
4o 3o 3- 3+ 3- 4- 4o 5-
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 32 10cm flux: 84 Flare: 2/22.1 Ca: 12.1 Ip: 0 Ig: 5
Solar Regions
13142 N38 13120 S15 (2) (13132) N34 (13134) S05
Sunspots
S12

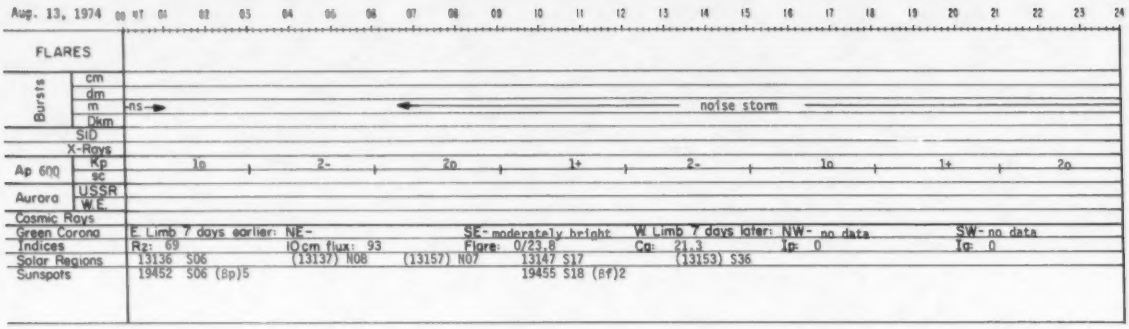

Aug. 8, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 16
Kp
sc
4- 5- 3+ 2+ 2- 2+ 3- 3-
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices
Rz: 34 10cm flux: 87 Flare: 0/22.0 Ca: 13.6 Ip: 0 Ig: 4
Solar Regions
(13143) S16 (13122) S13 13135 S15
Sunspots

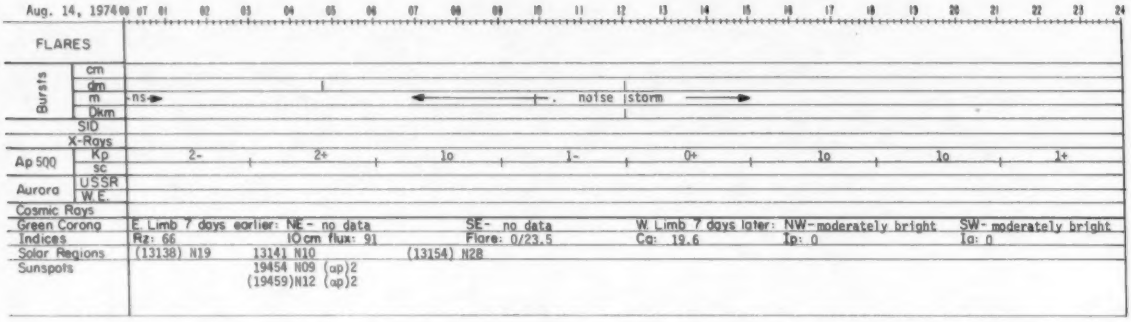

Aug. 9, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 16
Kp
2- 4- 3+ 2+ 1+ 4- 3+ 4+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data 330° -355° SW-
Indices
Rz: 45 10cm flux: 85 Flare: 19/23.1 Ca: 16.8 Ip: 0 Ia: 3
Solar Regions
Sunspots

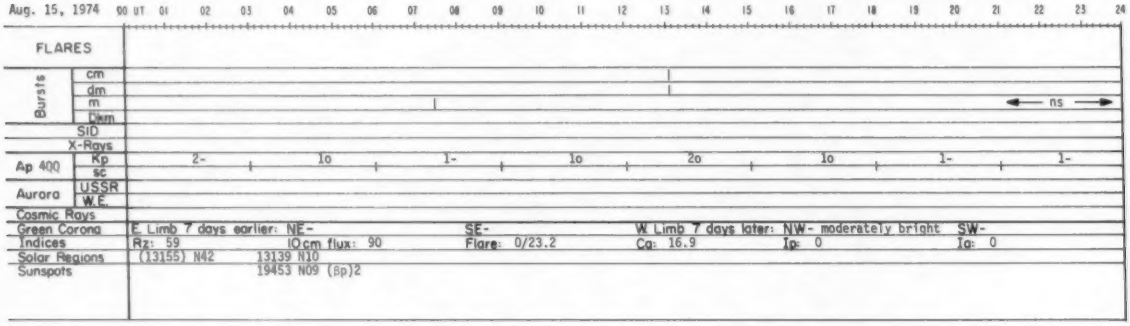

Aug. 10, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 16
Kp
4o 4o 3+ 3- 2- 2o 3+ 3o
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 51 10cm flux: 86 Flare: 0/23.1 Ca: 21.7 Ip: 0 Ia: 2
Solar Regions
(13150) N15 (13126) N07 (13145) N07 (13159) N16
Sunspots

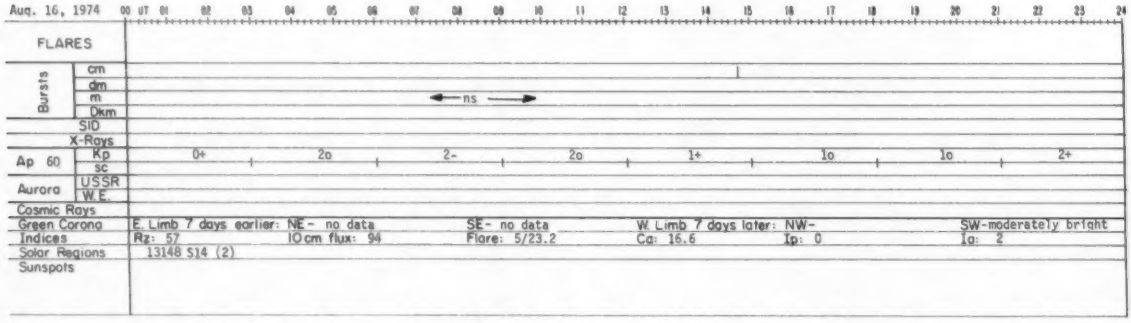

Aug. 11, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 100
Kp
3o 2+ 3- 3- 2- 2- 3- 2+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 50 10cm flux: 92 Flare: 0/22.6 Ca: no data Ip: 0 Ia: 1
Solar Regions
(13131) N10 13124 S08 (2) (13146) N24
Sunspots
19448 S08 (βp)5 CMP Aug. 10
19449 S07 (βp)3
(19451)S13 (αp)1

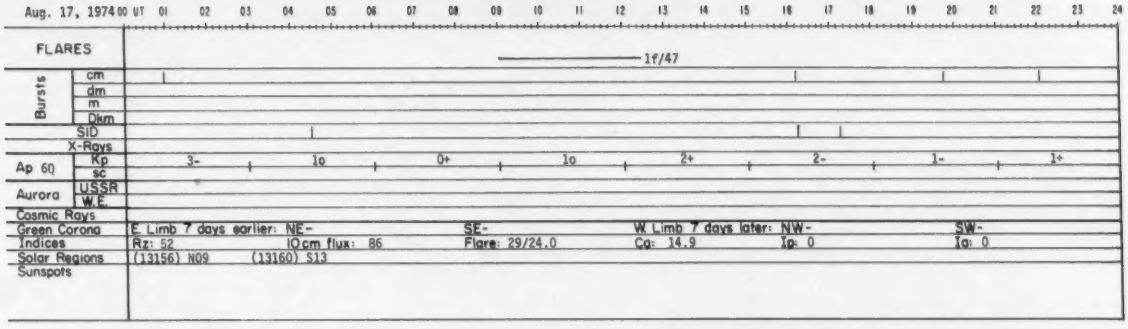

Aug. 12, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 500
Kp
1+ 2- 2- 1o 1o 1o 1o 2o
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- very bright W. Limb 7 days later: NW-moderately bright SW- moderately bright
Indices
Rz: 67 10cm flux: 97 Flare: 0/23.5 Ca: 23.6 Ip: 0 Ia: 0
Solar Regions
(13152) S11 13127 S18 13140 N07 13128 S08 (2)
Sunspots
(19458) S10 (βf)2 (19450) S18 βf)2 S06
(19456) S19 (αf)1

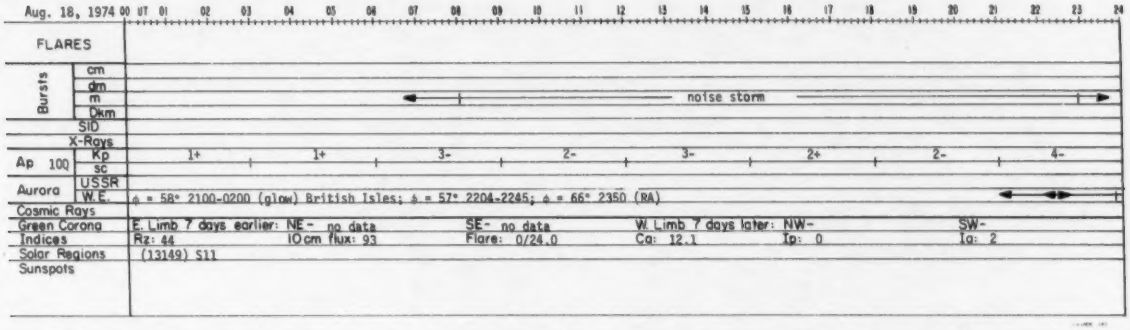

Aug. 13, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 600
Kp
sc
1o 2- 2o 1+ 2- 1o 1+ 2o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE-
Rz: 69
IOcm flux: 93
13136 S06
19452 S06 (βp)5
(13137) N08
SE- moderately bright
Flare: 0/23.8
(13157) N07
13147 S17
19455 S18 (βf)2
W Limb 7 days later: NW- no data
Cg: 21.3
Ip: 0
(13153) S36
SW- no data
Ig: 0

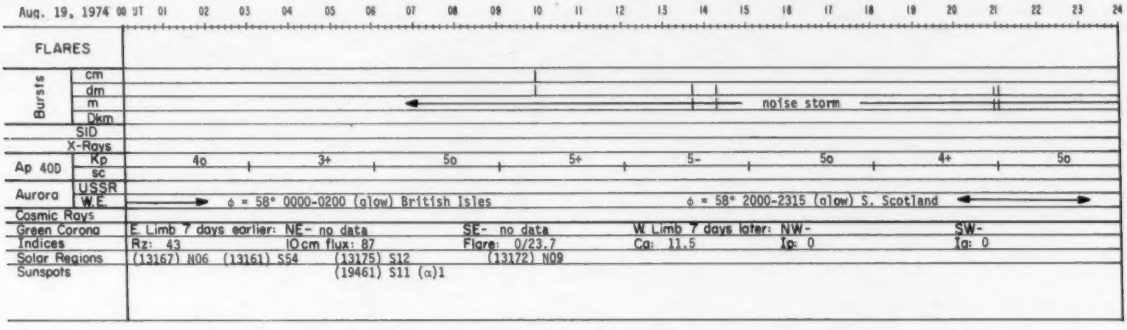

Aug. 14, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 500
Kp
sc
2- 2+ 1o 1- 0+ 1o 1o 1+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE- no data
Rz: 66
IOcm flux: 91
(13138) N19
13141 N10
19454 N09 (αp)2
(19459)N12 (αp)2
SE- no data
Flare: 0/23.5
(13154) N28
W Limb 7 days later: NW- moderately bright
Cg: 19.6
Ip: 0
SW- moderately bright
Ig: 0

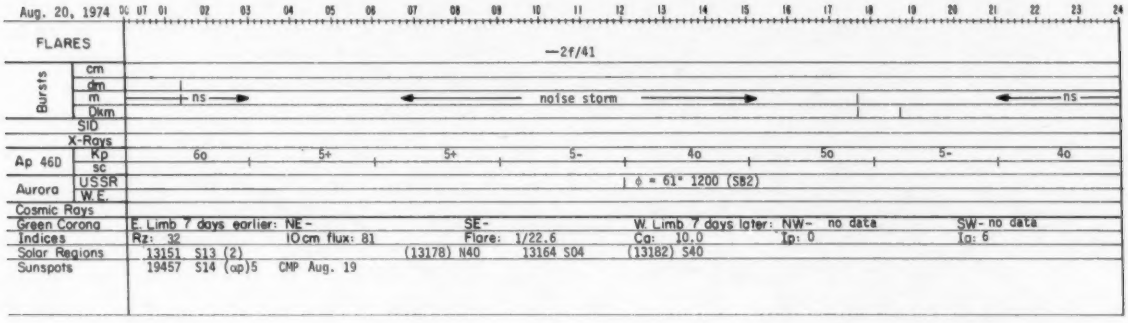

Aug. 15, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
SID
X-Rays
Ap 400
Kp
sc
2- 1o 1- 1o 2o 1o 1- 1-
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE-
Rz: 59
IOcm flux: 90
(13155) N42
13139 N10
19453 N09 (βp)2
SE-
Flare: 0/23.2
W Limb 7 days later: NW- moderately bright
Cg: 16.9
Ip: 0
SW-
Ig: 0

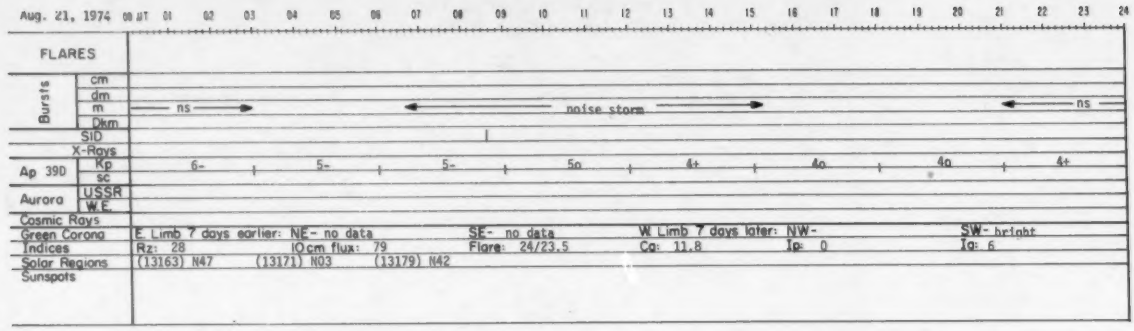

Aug. 16, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
SID
X-Rays
Ap 60
Kp
sc
0+ 2o 2- 2o 1+ 1o 1o 2+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE- no data
Rz: 57
IOcm flux: 94
13148 S14 (2)
SE- no data
Flare: 5/23.2
W Limb 7 days later: NW-
Cg: 16.6
Ip: 0
SW-moderately bright
Ig: 2

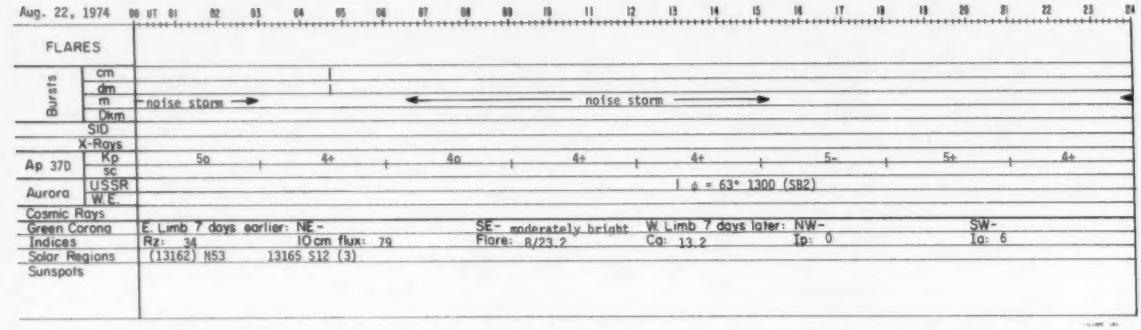

Aug. 17, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1f/47
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 60
Kp
sc
3- 1o 0+ 1o 2+ 2- 1- 1+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices
Rz: 52 10cm flux: 86 Flare: 29/24.0 Ca: 14.9 Ip: 0 Ia: 0
Solar Regions
(13156) N09 (13160) S13
Sunspots

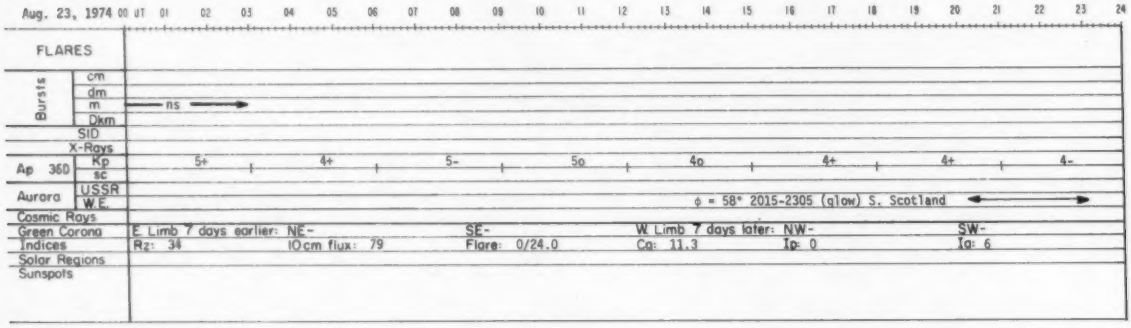

Aug. 18, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 100
Kp
sc
1+ 1+ 3- 2- 3- 2+ 2- 4-
Aurora
USSR
W.E.
φ = 58° 2100-0200 (glow) British Isles; φ = 57° 2204-2245; φ = 66° 2350 (RA)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices
Rz: 44 10cm flux: 93 Flare: 0/24.0 Ca: 12.1 Ip: 0 Ia: 2
Solar Regions
(13149) S11
Sunspots

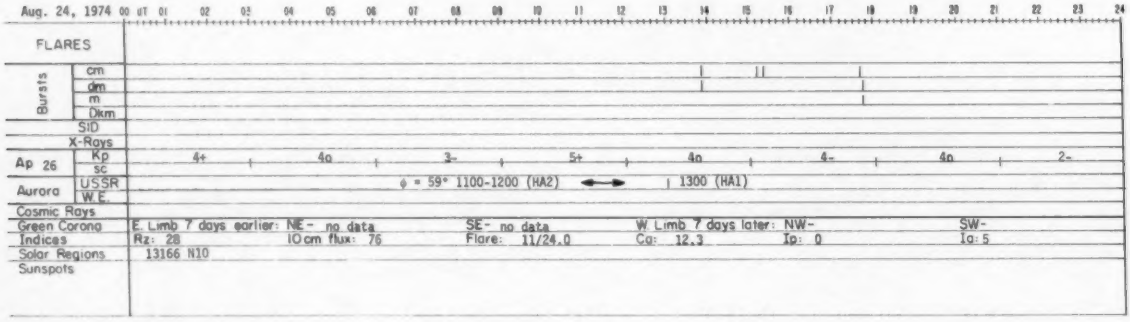

Aug. 19, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 400
Kp
sc
4o 3+ 5o 5+ 5- 5o 4+ 5o
Aurora
USSR
W.E.
φ = 58° 0000-0200 (glow) British Isles
φ = 58° 2000-2315 (glow) S. Scotland
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices
Rz: 43 10cm flux: 87 Flare: 0/23.7 Ca: 11.5 Ip: 0 Ia: 0
Solar Regions
(13167) N06 (13161) S54 (13175) S12 (13172) N09
Sunspots
(19461) S11 (α)1

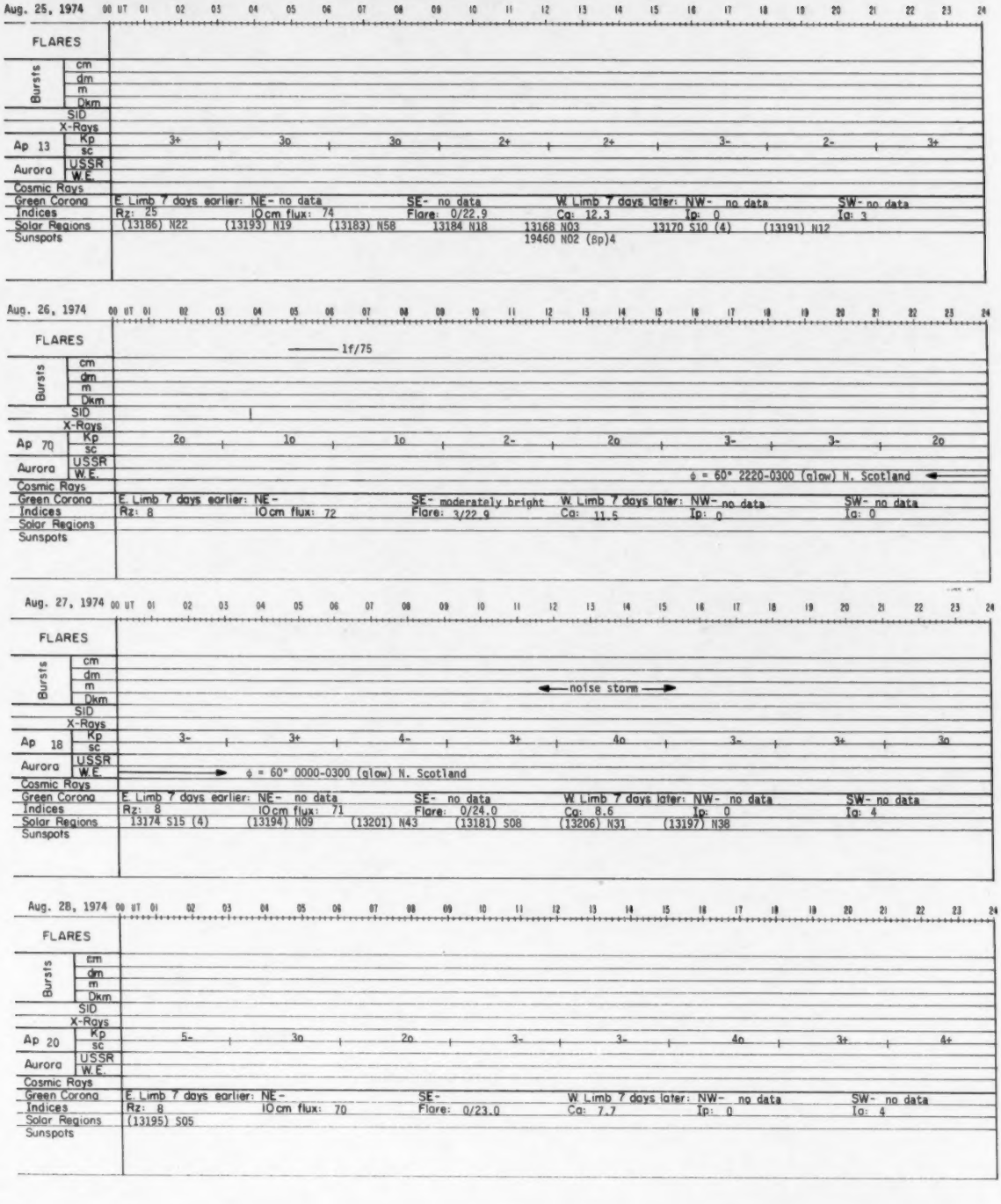

Aug. 20, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
2f/41
Bursts
cm
dm
m
Dkm
ns
noise storm
ns
SID
X-Rays
Ap 460
Kp
sc
6o 5+ 5+ 5- 4o 5o 5- 4o
Aurora
USSR
W.E.
φ = 61° 1200 (SB2)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 32 10cm flux: 81 Flare: 1/22.6 Ca: 10.0 Ip: 0 Ia: 6
Solar Regions
13151 S13 (2) (13178) N40 13164 S04 (13182) S40
Sunspots
19457 S14 (αp)5 CMP Aug. 19

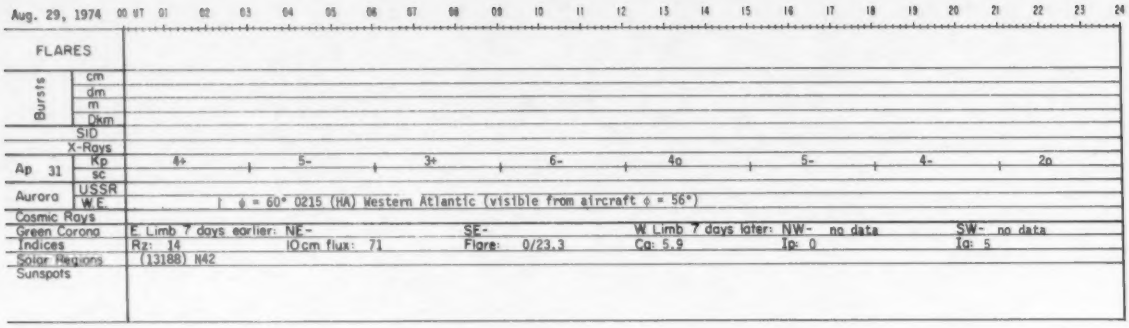

Aug. 21, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
ns
SID
X-Rays
Ap 39D
Kp
6- 5- 5- 5o 4+ 4o 4o 4+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW- bright
Indices
Rz: 28 10cm flux: 79 Flare: 24/23.5 Cg: 11.8 Ip: 0 Ig: 6
Solar Regions
(13163) N47 (13171) N03 (13179) N42
Sunspots

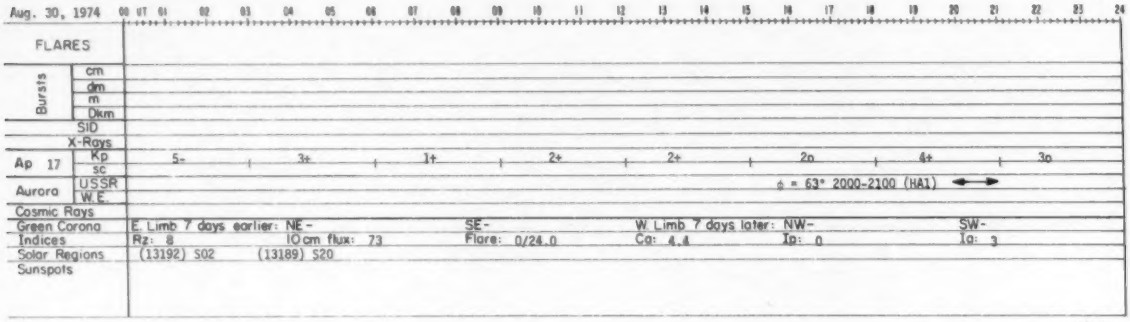

Aug. 22, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
noise storm
SID
X-Rays
Ap 37D
Kp
5o 4+ 4o 4+ 4+ 5- 5+ 4+
sc
Aurora
USSR
W.E.
φ = 63° 1300 (SB2)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- moderately bright W. Limb 7 days later: NW- SW-
Indices
Rz: 34 10cm flux: 79 Flare: 8/23.2 Cg: 13.2 Ip: 0 Ig: 6
Solar Regions
(13162) N53 13165 S12 (3)
Sunspots

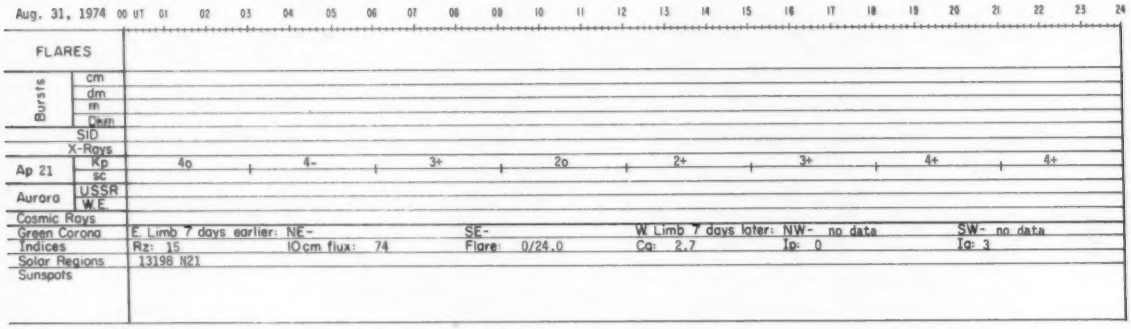

Aug. 23, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
SID
X-Rays
Ap 36D
Kp
5+ 4+ 5- 5o 4o 4+ 4+ 4-
sc
Aurora
USSR
W.E.
φ = 58° 2015-2305 (glow) S. Scotland
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices
Rz: 34 10cm flux: 79 Flare: 0/24.0 Cg: 11.3 Ip: 0 Ig: 6
Solar Regions
Sunspots


Aug. 24, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 26
Kp
4+ 4o 3- 5+ 4o 4- 4o 2-
sc
Aurora
USSR
W.E.
φ = 59° 1100-1200 (HA2)
1300 (HA1)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices
Rz: 28 10cm flux: 76 Flare: 11/24.0 Cg: 12.3 Ip: 0 Ig: 5
Solar Regions
13166 N10
Sunspots


Aug. 25, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 13
Kp
3+ 3o 3o 2+ 2+ 3- 2- 3+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data
SE- no data
W. Limb 7 days later: NW- no data
SW- no data
Indices
Rz: 25
10cm flux: 74
Flare: 0/22.9
Cg: 12.3
Ip: 0
Ig: 3
Solar Regions
(13186) N22 (13193) N19 (13183) N58 13184 N18 13168 N03 13170 S10 (4) (13191) N12
Sunspots
19460 N02 (Bp)4
Aug. 26, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1f/75
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 70
Kp
2o 1o 1o 2- 2o 3- 3- 2o
sc
Aurora
USSR
W.E.
ϕ = 60° 2220-0300 (glow) N. Scotland
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE-
SE- moderately bright
W. Limb 7 days later: NW- no data
SW- no data
Indices
Rz: 8
10cm flux: 72
Flare: 3/22.9
Cg: 11.5
Ip: 0
Ig: 0
Solar Regions
Sunspots
Aug. 27, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
noise storm
Dkm
SID
X-Rays
Ap 18
Kp
3- 3+ 4- 3+ 4o 3- 3+ 3o
sc
Aurora
USSR
W.E.
ϕ = 60° 0000-0300 (glow) N. Scotland
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data
SE- no data
W. Limb 7 days later: NW- no data
SW- no data
Indices
Rz: 8
10cm flux: 71
Flare: 0/24.0
Cg: 8.6
Ip: 0
Ig: 4
Solar Regions
13174 S15 (4) (13194) N09 (13201) N43 (13181) S08 (13206) N31 (13197) N38
Sunspots
Aug. 28, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 20
Kp
5- 3o 2o 3- 3- 4o 3+ 4+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE-
SE-
W. Limb 7 days later: NW- no data
SW- no data
Indices
Rz: 8
10cm flux: 70
Flare: 0/23.0
Cg: 7.7
Ip: 0
Ig: 4
Solar Regions
(13195) S05
Sunspots


Aug. 29, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 31 Kp 4+ 5- 3+ 6- 4o 5- 4- 2o
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices Rz: 14 10cm flux: 71 Flare: 0/23.3 Cq: 5.9 Ip: 0 Ig: 5
Solar Regions (13188) N42
Sunspots
φ = 60° 0215 (HA) Western Atlantic (visible from aircraft φ = 56°)


Aug. 30, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 17 Kp 5- 3+ 1+ 2+ 2+ 2o 4+ 3o
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices Rz: 8 10cm flux: 73 Flare: 0/24.0 Cq: 4.4 Ip: 0 Ig: 3
Solar Regions (13192) S02 (13189) S20
Sunspots
φ = 63° 2000-2100 (HA1)


Aug. 31, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 21 Kp 4o 4- 3+ 2o 2+ 3+ 4+ 4+
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices Rz: 15 10cm flux: 74 Flare: 0/24.0 Cq: 2.7 Ip: 0 Ig: 3
Solar Regions 13198 N21
Sunspots

REGIONAL FLARE INDEX

AUGUST 1974

MC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
13109	S16	74/08/02.6	74/07/28	74/07/28	0.85	0.85	1
13119	N 9	74/08/06.7	74/08/03	74/08/03	2.23	2.23	1
13124	S 9	74/08/11.2	74/08/06	74/08/07	7.60	3.80	2
13128	S 9	74/08/12.9	74/08/09	74/08/09	19.35	19.35	2
13147	S17	74/08/13.7	74/08/17	74/08/17	15.25	15.25	1
13141	N13	74/08/14.8	74/08/17	74/08/20	14.19	3.55	2
13175	S12	74/08/19.5	74/08/16	74/08/26	31.67	2.88	7
13168	N 3	74/08/25.6	74/08/21	74/08/24	20.01	5.00	2

Note:
The Regional Flare Index and count of flares in each region has in previous months included each maximum of a multi-maximum event. This has caused some regions to appear to be more flare producing than is probably warranted. Beginning with April 1972 only the principal maximum of a multi-maximum event will be used in the calculation. Also note that only the Confirmed Events as selected for the "I.A.U. Quarterly Bulletin on Solar Activity" are included in the calculation.

Because of differences in method of calculation, the dates of Central Meridian Passage for the McMath Plage Regions vary somewhat from those given elsewhere. Any region not listed here produced no confirmed flares during its disk passage.

MISCELLANEOUS DATA

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1 DECEMBER 1974

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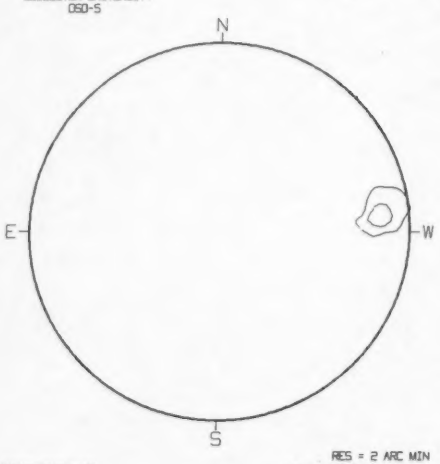
9·6-11·1Å X-RAYS



0019-0154 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

2 DECEMBER 1974

UNIVERSITY COLLEGE LONDON
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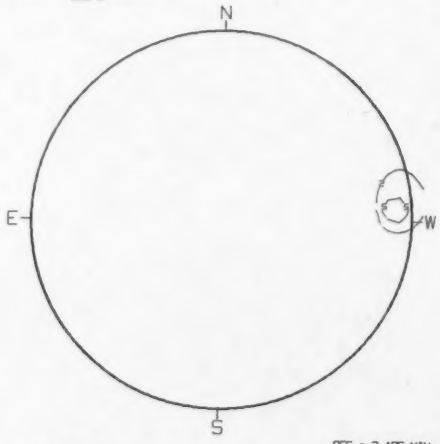
OSO-5

9·6-11·1Å X-RAYS



253- 431 UT

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LEICESTER UNIVERSITY
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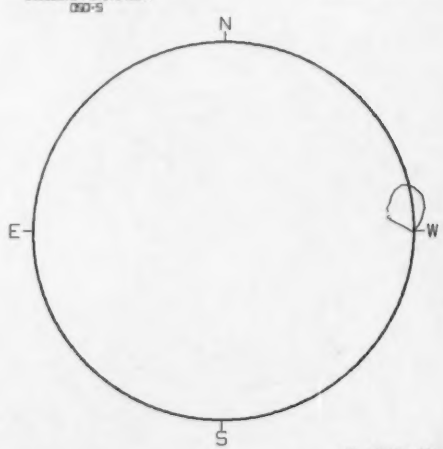

0635-0734 UT

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4 DECEMBER 1974

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LEICESTER UNIVERSITY
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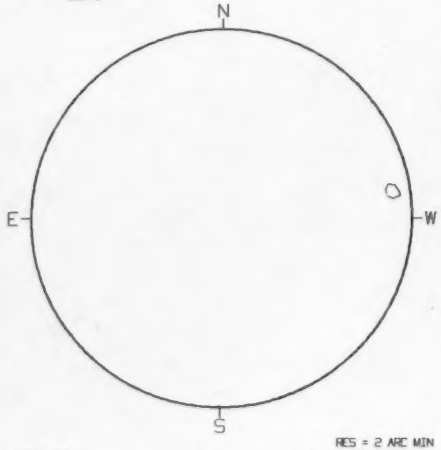

0230-0330 UT

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5 DECEMBER 1974

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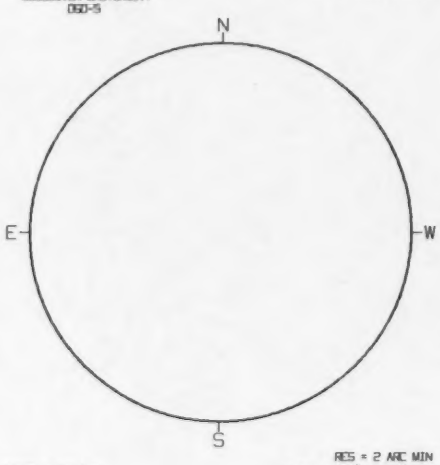
9·6-11·1Å X-RAYS



0036-0213 UT

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6 DECEMBER 1974

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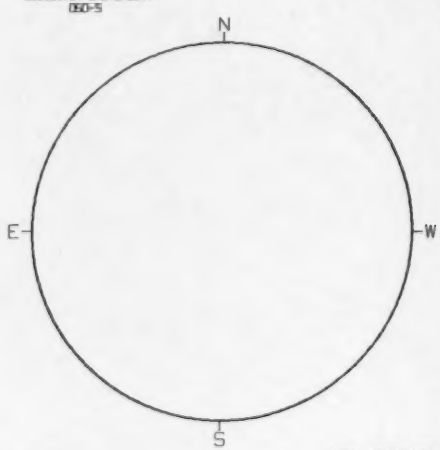
9·6-11·1Å X-RAYS



0056-0154 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

55
Misc
Dec 74

7 DECEMBER 1974

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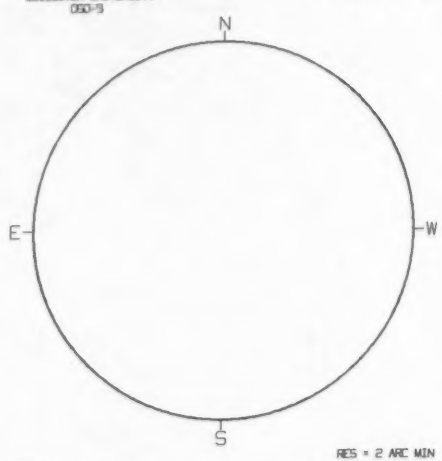
9·6-11·1Å X-RAYS



0044-0142 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

8 DECEMBER 1974

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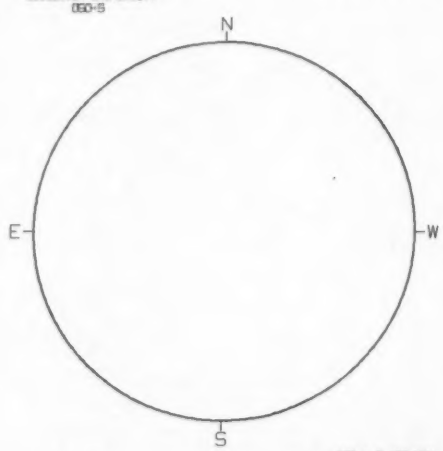
9·6-11·1Å X-RAYS



0214-0312 UT

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9 DECEMBER 1974

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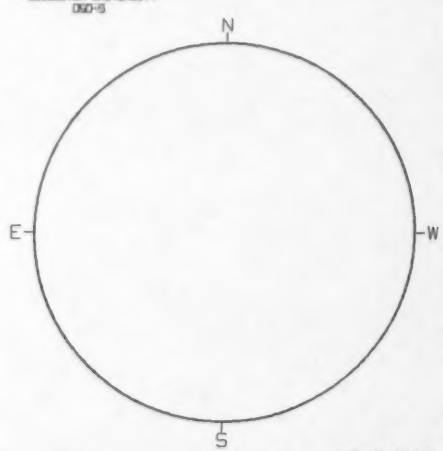

1036-1143 UT

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12 DECEMBER 1974

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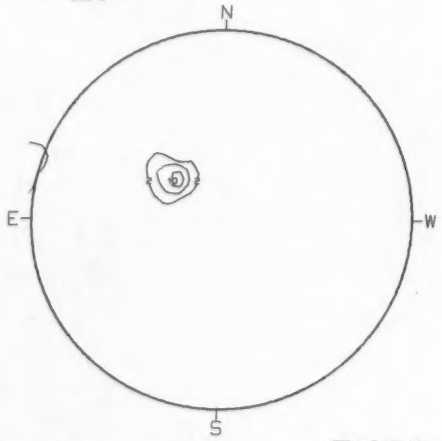

0708-0747 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

13 DECEMBER 1974

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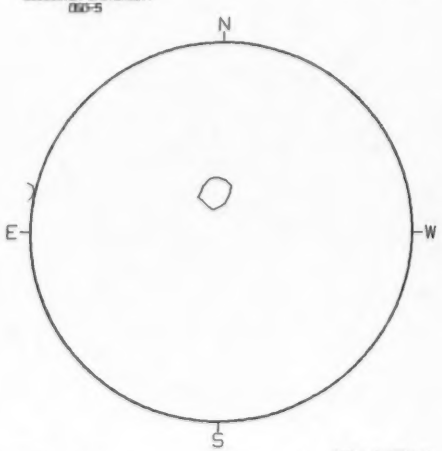
9·6-11·1Å X-RAYS



0254-0424 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

14 DECEMBER 1974

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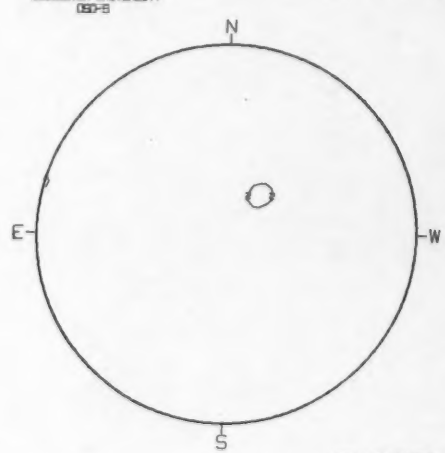
9·6-11·1Å X-RAYS



0242-0340 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

15 DECEMBER 1974

UNIVERSITY COLLEGE LONDON
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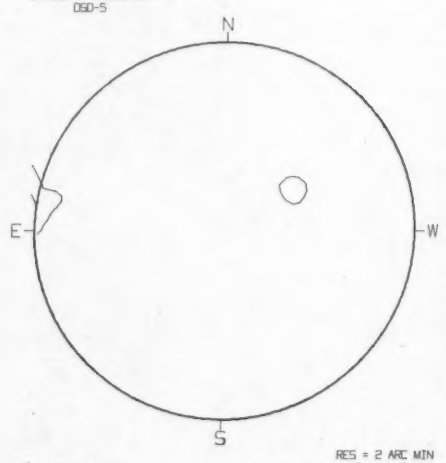

0124-0220 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

16 DECEMBER 1974

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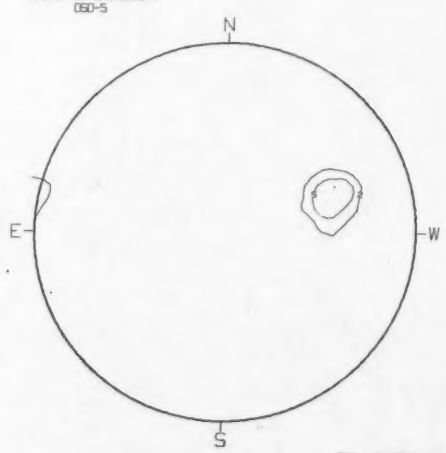
9·6-11·1Å X-RAYS



0432-0531 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

17 DECEMBER 1974

UNIVERSITY COLLEGE LONDON
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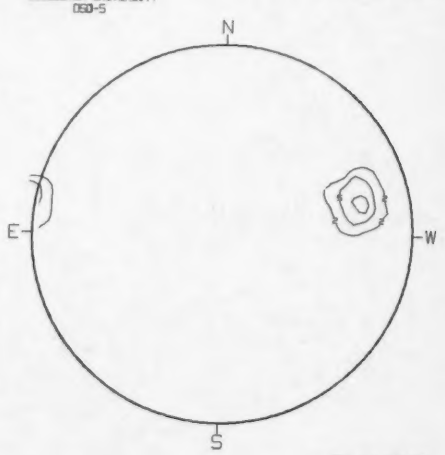
9·6-11·1Å X-RAYS



0106-0240 UT

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UNIT = 10^{-6}ERG/CM^2/SEC

18 DECEMBER 1974

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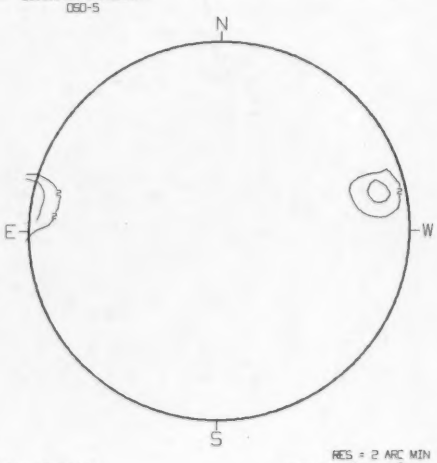
9·6-11·1Å X-RAYS



0200-0230 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

20 DECEMBER 1974

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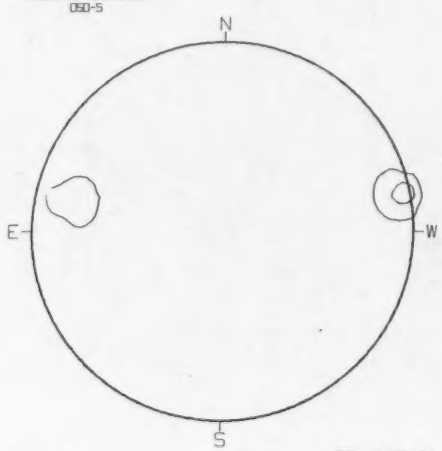
9·6-11·1Å X-RAYS



0030-0131 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

28 DECEMBER 1974

UNIVERSITY COLLEGE LONDON
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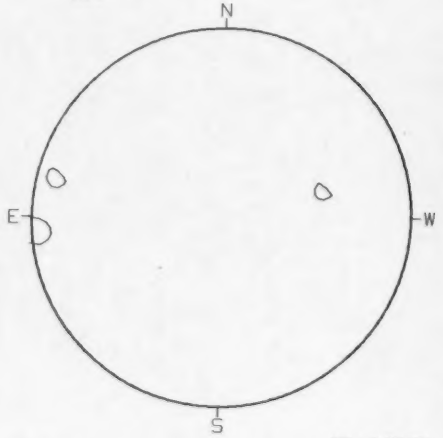
9·6-11·1Å X-RAYS



0100-0200 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

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